The Blackboard Book

Eleanor Watts

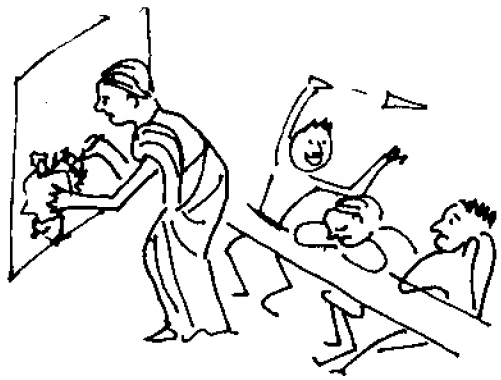
Part 2 : Subject teaching Part 2 looks at the use of the blackboard with reference to its use in the main subject areas of the school. The section on language work looks at types of exercise you can devise for yourself according to the needs of your class. Most of the ideas for maths, science, history and geography involve work which *cannot* be found in a general purpose textbook. Work which can be found in a textbook is not included, so do not expect a balanced presentation of the curriculum! This is not the place for a picture of a skeleton or a map of the world. There would be too much detail for the blackboard and a textbook artist is likely to be more accurate than a teacher in a hurry. The focus is on ways you can use the board. These usually relate to the familiar world: graph work about data to be found in the children's own environment, experiments which can be done with locally available materials, survey work, local geography and history.

Since this book stresses the need for teachers to devise work appropriate to the needs of their classes, it goes without saying that you will need to adapt all suggested work to your own situation.

At the back of the book there are two indexes: one for vocabulary and one for language structure. So, for example, if you want to draw a picture of a lamp, look it up in the vocabulary index. If you are teaching the present perfect tense and feel your class needs a reinforcement excercise, turn to the structure index.

Blackboard technique

Be quick! Don't spend a long time drawing a masterpiece. The children will get bored! Keep talking to the children while you draw—ask what you are drawing or what they think you will draw next. Try not to rub out; it wastes time. If you do detailed composite pictures or maps (like those on pages 29 and 110), do them before school.



Draw fast or your class will be bored. Do detailed drawings before the lesson.

Be simple! A recognisable picture is enough. Your pupils will get used to certain symbols and accept the meaning you have given them, even if your symbol for a horse looks nothing like one! Avoid any unnecessary details.

Write clearly. Your handwriting should be clear and horizontal across the board. Use white or yellow chalk for writing as these show up more clearly than coloured chalk.

Plan your layout. Start at the top of the board and go down, so that there is a clear progression in the work to be done. If you have only one board, you may need to divide it in half with a vertical line. Put the picture, graph, map or diagram on one side and the exercises on the other. You can also put up exercises at the two different levels if you divide the board in half. If it is possible, try to get two blackboards into your classroom as they will give you more space to play around with.

In conclusion

This book aims to help teachers develop two important skills:

1. drawing on the board,
2. devising exercises on the board.

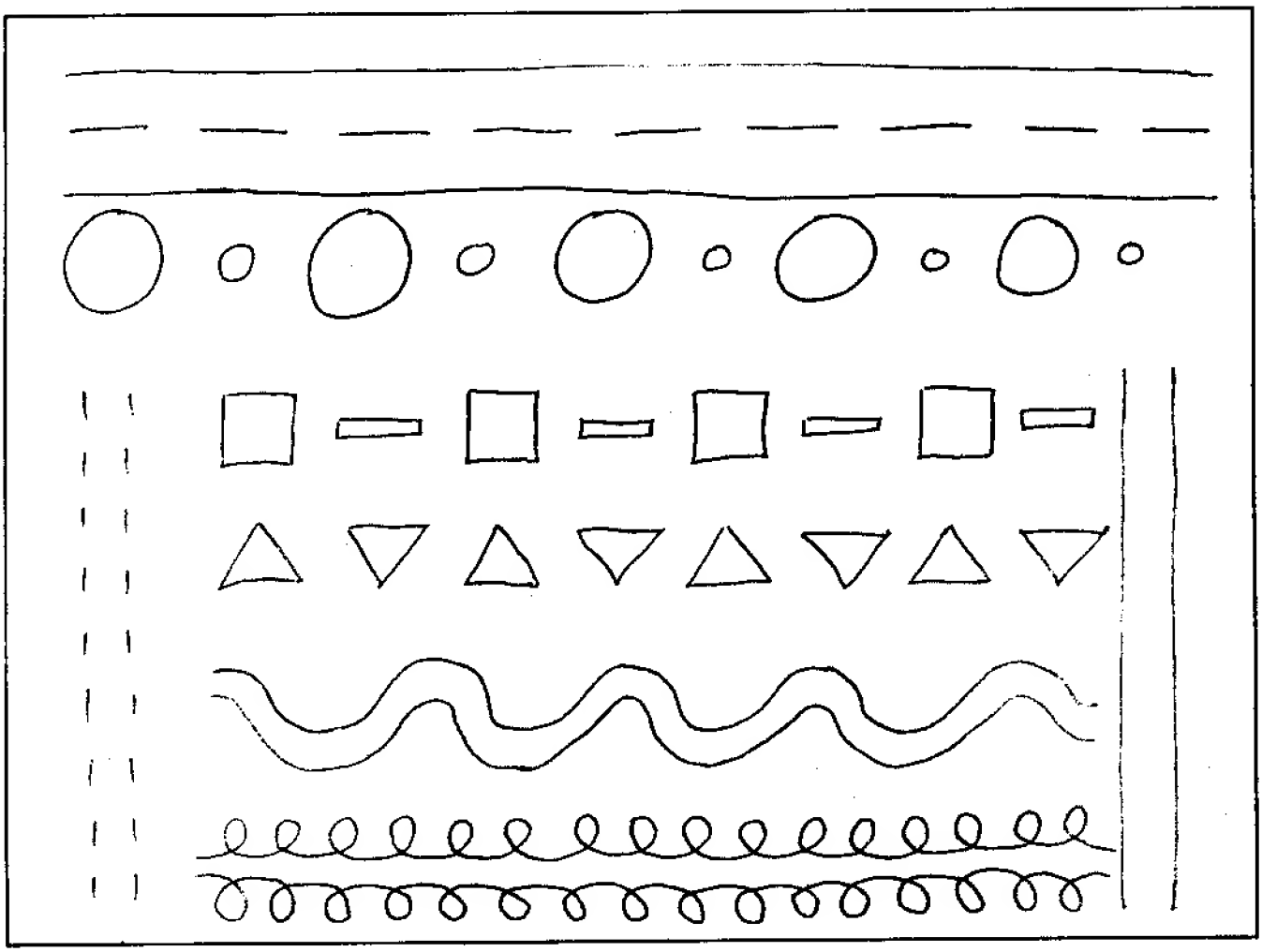
Drawings can help you to clarify the meanings of words (e.g. p. 31),
can give a visual context to a story (e.g. p. 65),
can tell a simple story (e.g. p. 76),
can provide material for discussion and writing (e.g. p. 71),
can give semi-literate children clues in early written work, (e.g. p. 58),
can provide visual clues to language exercises (e.g. p. 57)
can show children how to set up an experiment (e.g p. 96),
add to the fun and interest of a lesson.

Written work on the board
can be adapted to the level of ability of your pupils (e.g., the varied exercises according to Levels 1, 2 and 3.),
can be related to the local environment of the children (e.g. p. 110),
can provide a structure to survey work you wish the children to do (e.g. p. 118),
can be based on visits or surveys the children have made, (e.g. p. 70)
can be based on practical work which the children have done (e.g. p. 96)

The blackboard itself is not new, but can be used in countless new ways. If used well, it can be a window from the classroom into the world.

BLACKBOARD PRACTICE

Working on a big space

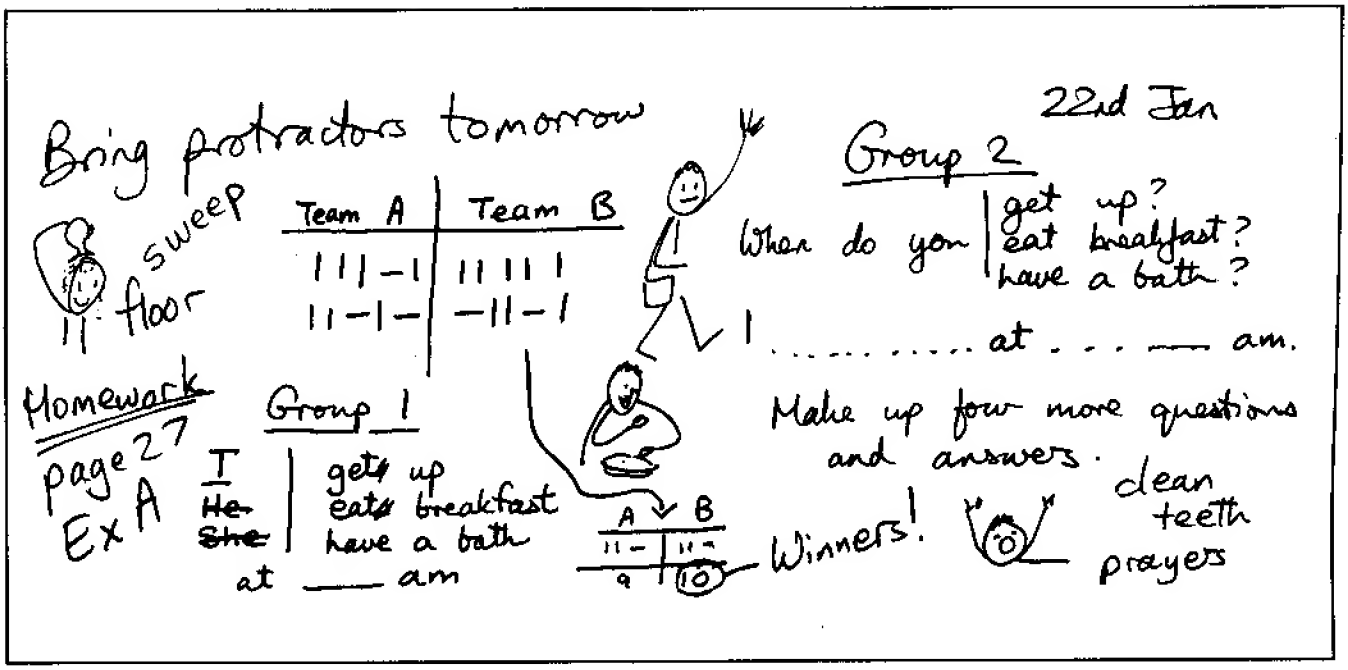


If you are new to the blackboard	You will need to get used to working on a big space. Copy the above patterns onto a blackboard. See if you can fit it all in the space. Remember these things while you practise :
Horizontal and vertical lines	Try to keep them straight. Don't let them slant up and down or sideways.
Circles	See how round you can make your circles. It will take some practice—like rolling a round roti!
Squares and rectangles	Concentrate on the right angles. Try to space the shapes evenly and again, be sure that you don't slant off the horizontal.
Triangles	See that you keep them between two imaginary horizontal lines.
Wavy lines	Keep the distance between the two lines constant.
Loops	Try to keep the lower loops directly below the upper loops.

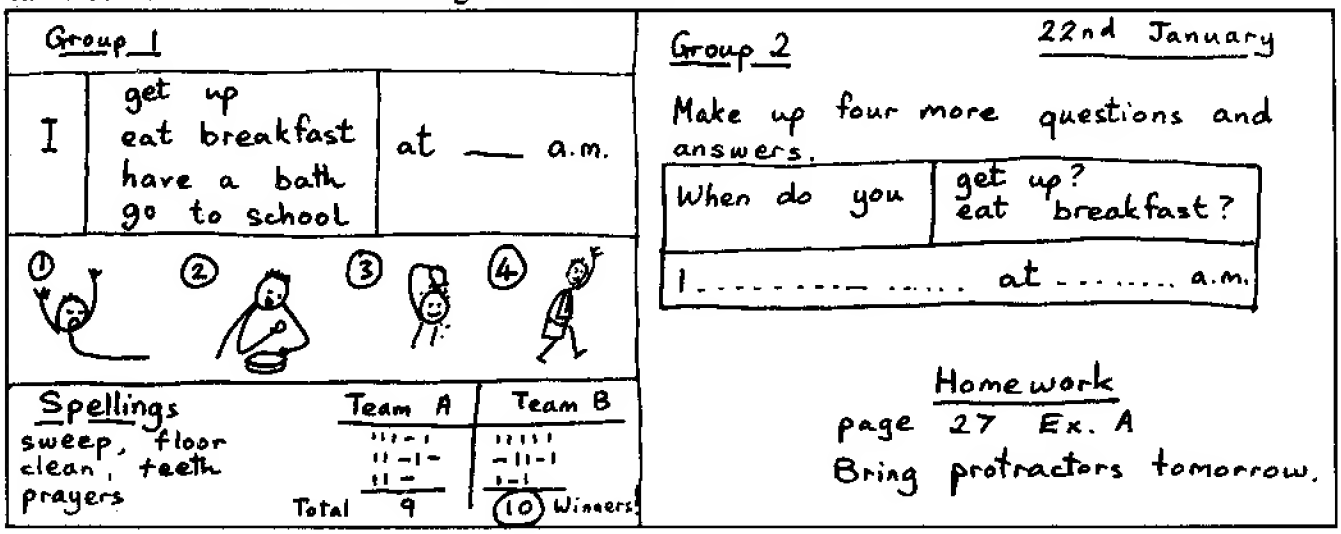
Well, did you fit all the patterns in? Did you keep to the proportions of the design in the book? If not, try again!

Organising space on the board

This is how NOT to organise your blackboard.



The blackboard should help children learn. It should never make learning more difficult. If your blackboard is well-organised, your pupils' work is likely to be well organised. The same content could have been organised like this :



Remember

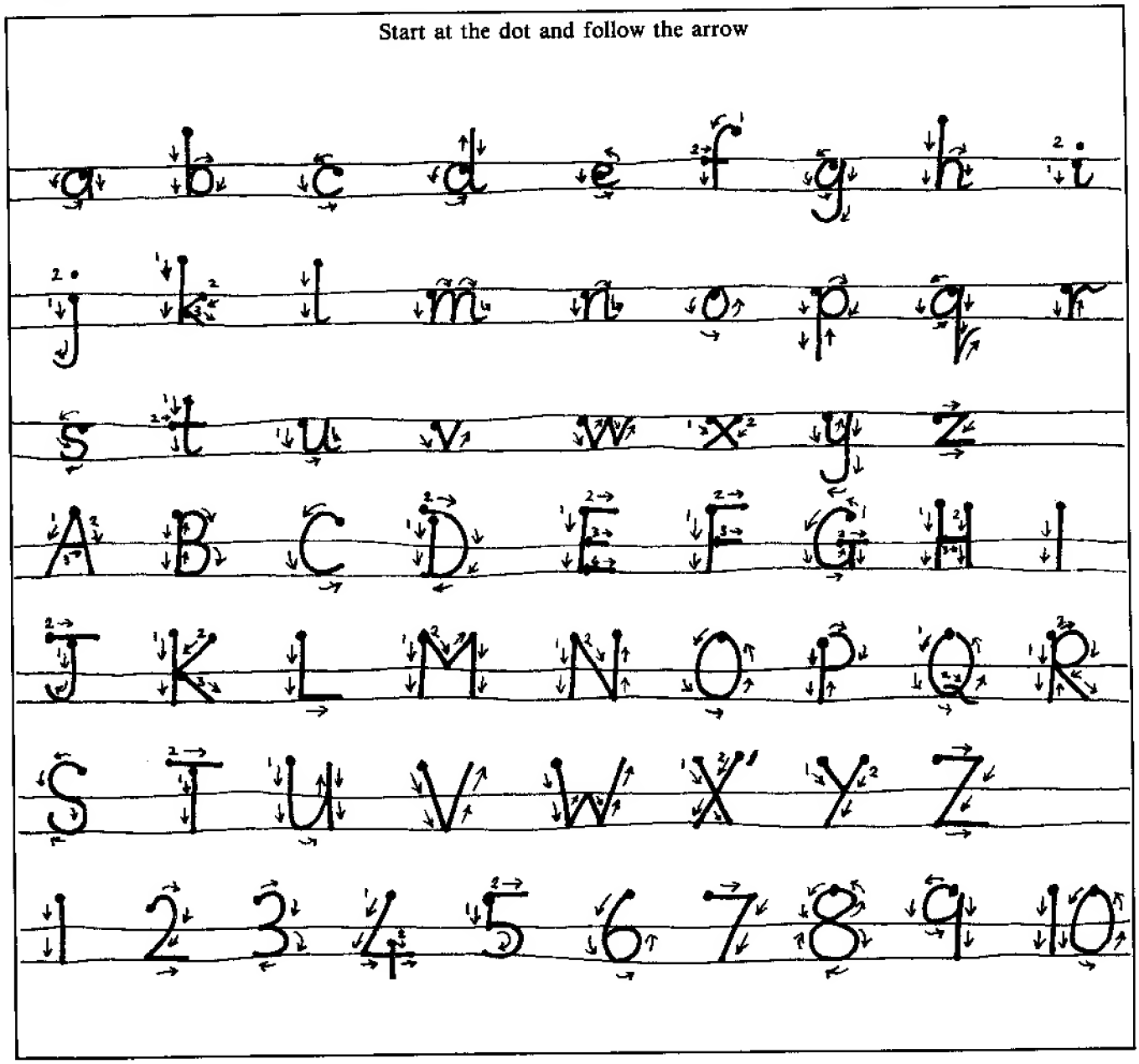
1. Always write neatly and clearly (for advice on handwriting, see pages 3-5).
2. Keep the bottom left hand corner for new spellings.
3. Keep the bottom right hand corner for homework tasks and reminders.
4. If you set different tasks for pupils of different ability, keep one side of the board for Group 1 and the other side for Group 2. Be consistent. Always keep to the same board layout.
5. Make sure that you do not mix up different tasks on the board.
6. Try to fit all substitution tables on one line.
7. Plan your work before the lesson, but if you do make a mistake, rub it out. Don't cross it out.

Handwriting

Normally all handwriting on the board should be in lower case (small letters) except when capital letters are necessary for correct punctuation. It is very important that all writing on the board should be clear and correctly formed, so that your pupils can follow a good model. Your writing on the board should correspond to the type of handwriting you want from your pupils.

Level 1

When teaching beginners it is essential that your own writing should be large, clear, correctly formed and correctly placed. When you are teaching handwriting show your pupils how to form letters between double lines. Draw these first with a steady hand right across the board. Indicate where to start each letter and which direction to follow.



Handwriting (continued)

Level 2

There is no need to write between double lines once the children have learned how to form and position their letters correctly. However, they are probably not yet ready to read joined writing. Be sure that you continue to position your own letters correctly along an imaginary horizontal line. For example, avoid writing words like this :

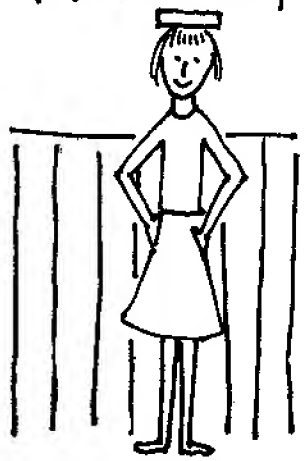
Please don,t write higgledy-piggledy letters like this - you'll set a bad example!

Write them like this—with nice big gaps between words and a clear difference between ascenders (t,h,l, etc.) and descenders (p,y,g, etc.)

Place your letters correctly on an imaginary line. Leave big gaps between words.

While children are learning to write, it is probably best to insist that all up and down strokes are vertical. They should certainly never lean backwards. Try to keep your own writing on the board vertical so that the children have a good model to follow.

These letters have had too much to drink! Don't wobble backwards and forwards.



Keep your letters upright. All the vertical lines should be parallel to each other.

Handwriting (continued)

Level 3

When children have been taught to form their letters correctly, they should have little trouble in making the transition to joined writing. They do, however, need plenty of practice in letter joins. Give simple exercises (graduating from patterns to whole words) to be copied from the board like these :

1	2	3	4
eeeeeeeee	ab ac ad	Before some letters, you should lift your pencil at \ and start again at •	good cook
oooooooo	ae af ag		small ball
lllllllll	ah ai aj		child chair
uuuuuuuu	ak al am	n\a t\a m\a	sheep shop
lllllllll	an ao ap	e\c u\c i\c	this there
oooooooo	aq ar as	ig eg og	shirt bird
ccccccccc	at au av	aq eq iq	cart arm
aaaaaaaa	aw ax ay az	old ad ud	storm for
hhhhhhhh	ob oc od	Some letters do not join at all, for example:	sister flower
nnnnnnnn	oe of og		turn burn
mmmmmm	oh oi oj	ba be bu	cake make
jjjjjjjjjj	ok ol om	go gi ga	time line
rrrrrrrrr	on oo op	ya ye yi	rose nose
ssssssssss	oq or os	po pu pa	supercali-
kkkkkkkk	ot ou ov	Capitals never join:	fragilistice-
gggggggg	ow ox oy oz	At Bi Co Di	pialidocious

Teach the children that all letters do not need to be joined (for example, pi, ji, bi and zi). Explain that there can be two or three correct ways of forming a letter for example, S and S, gi and gi, x and x, f, f and f.

Teach your pupils to avoid fancy flourishes—and of course, you should avoid them in your own writing on the board.

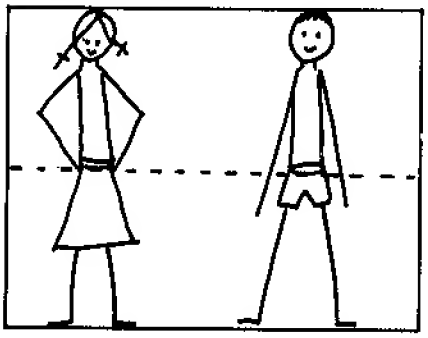
A: Topic based work

PEOPLE

How to draw stick people

Almost all learning involves people, so do learn how to draw them. It is not difficult if you take a little time to practise.

People standing

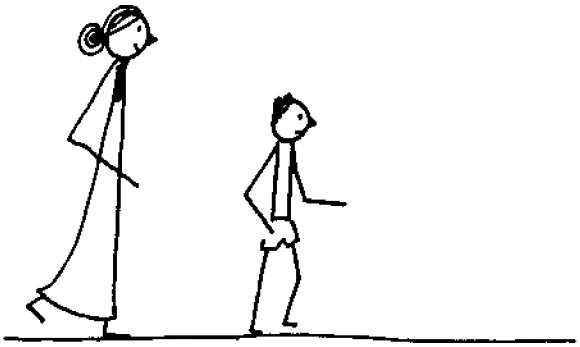


The head and body are the same length as the legs.

The arms, if they are straight, come down to the tops of the legs.

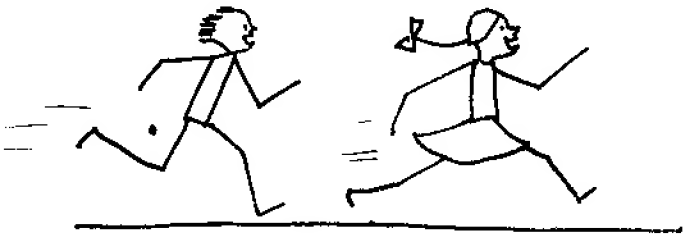
Don't bother with hands, ears or noses.

People walking
The nose points forwards. So do the feet. The elbows point backwards and the knees point forwards. One foot is flat on the ground.

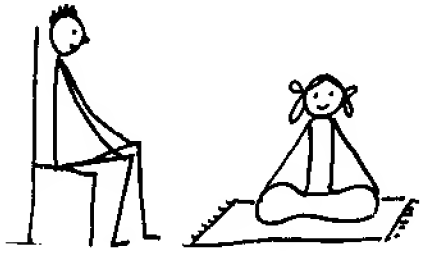


People running
The arms swing out further. The body can be bent forwards. The feet can be off the ground. If you wish, you can put 'speed' lines behind the body.

The hair streams back and the mouth can be open.



People sitting

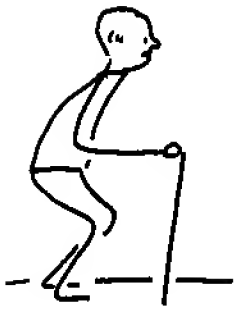


If the person is sitting on a chair, it is easiest to draw the figure facing sideways.

If the person is sitting on the floor, it is easiest to draw the figure facing forwards. Don't bother to try and cross the legs. You'll probably get in a muddle!

A few tips on drawing people

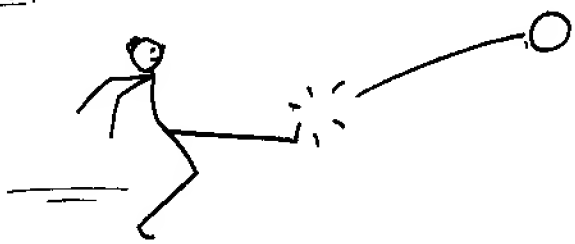
DO leave a space to show which limb is in front.



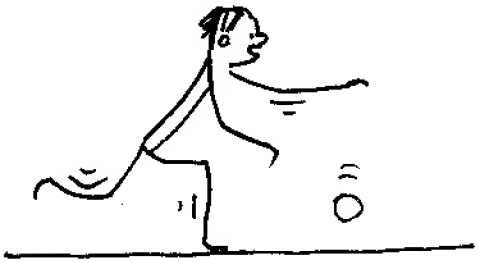
DO exaggerate movement—it makes your drawing more fun !

DO change lines if they don't look right. Don't waste time rubbing them out.

DO show movement with action lines



or visual echoes as if you were drawing the stills of a moving picture.



DO put the head above the foot on the ground—or she'll fall over !

DON'T rub out. You haven't got time. You aren't drawing a work of art. After all, you will rub the whole picture out at the end of the lesson.

DON'T make the angles of a body too wide. Human beings don't look like that.

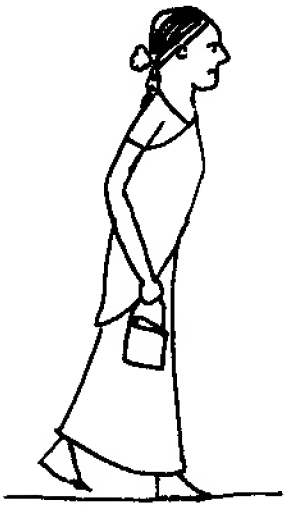
DON'T go into too much detail. The children will get bored—and may be naughty if your back is turned for too long!

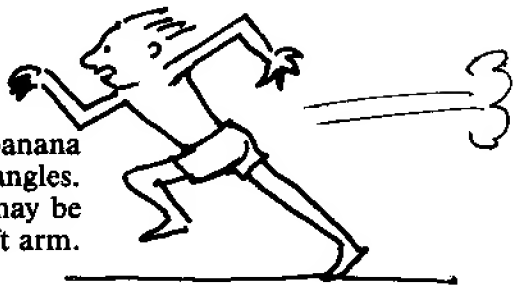
But ... DON'T draw carelessly. If you don't join up the lines of a body, they are hard to read.

Turning stick people into real people

Stick people are useful because you can draw them quickly. But solid people don't take much longer and they look more real. Here are three stick figures from the previous page. They are just a little more solid.

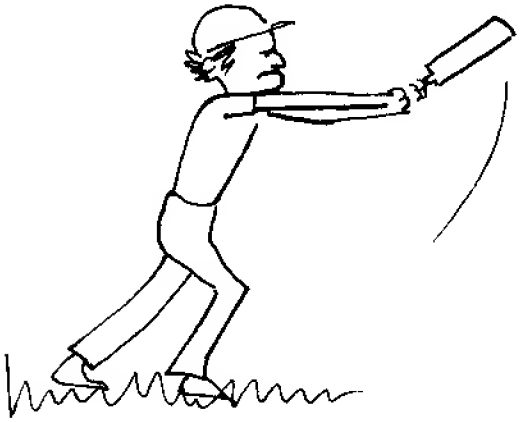
Remember to draw what is nearest to you first. Draw the boy's left arm *before* his body, the girl's legs *before* the skipping rope etc.





Hands can be circles or 'banana bunches'. Feet can be triangles. Some parts of the body may be hidden—like the lady's left arm.

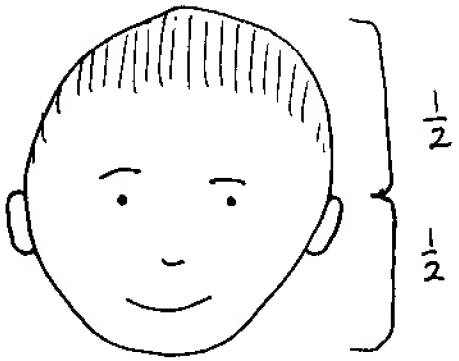
People's legs get slightly thinner towards the feet and their arms get thinner towards their hands. Normally the left leg is in front when the left arm is at the back—that's how we balance ourselves.



The head is the most interesting part of the body because it shows expressions. Don't worry if it is disproportionately big.

A lively picture is always better than a 'correct' picture.

How to draw faces



For a full-face view, start with a circle or an egg shape.

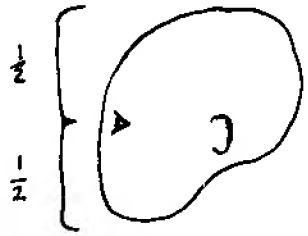
The eyes are halfway down.

The tops of the ears are level with the eyes.

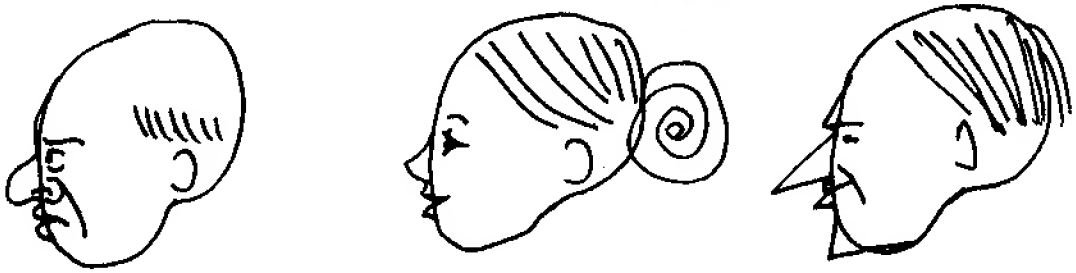
The main features that show expression are the mouth, eyebrows and wrinkles.

The most obvious ways to show feeling are to have an upturned mouth for happiness and a downturned mouth for sadness. There is more about expression on the following pages.

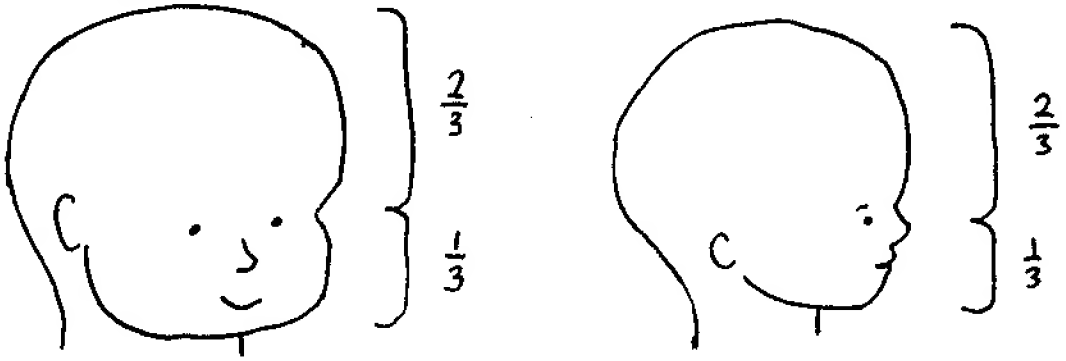
From the side, a head sits on its neck like a mango. The eye is halfway down. The forehead is nearly always bigger than you think it is. So is the space between the ear and the eye.



You can do what you like to the mouth and nose :



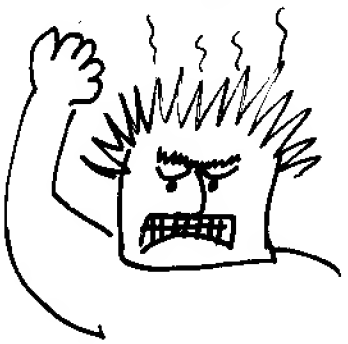
A baby's eyes are two-thirds of the way down the face. The cheeks are fatter than an adult's and the chin shorter.



How to draw expressions

pleased	**happy**	**delighted**	**overjoyed**
			
slightly upturned mouth	wider mouth, high eyebrows	open mouth, laughter lines	slit eyes, tears of laughter, hair flying out

thoughtful	**sad**	**very sad**	**miserable**
			
head in hands, low eyebrows, straight mouth	downturned mouth, upturned eyebrows	exaggerated 'sad' features, tears	slit eyes, lots of tears, untidy hair

surprised	**cross**	**angry**	**furious**
			
high eyebrows, mouth 'o' shaped	inturned eyebrows, downturned mouth	exaggerated 'cross' features, low eyebrows, upstanding hair	beetled eyebrows, teeth showing, raised fist, steam from head

How to draw expressions (continued)

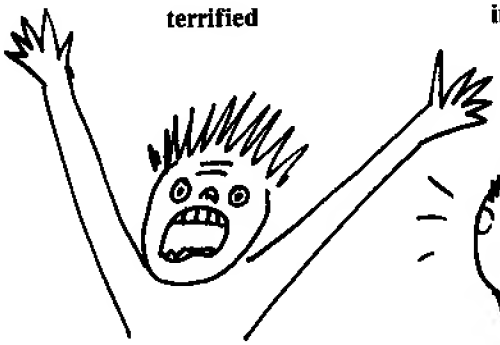
anxious

upturned eyebrows, creased forehead, head in hands

frightened

open mouth, big eyes, hair on end

terrified



wide open mouth, hands outflung, forehead creased

in pain

gritted teeth, eyes scrunched up, 'pain' lines

sleepy/bored

closed eyelids, head on hand, drooping hair

sulky

slightly downturned mouth, low eyebrows, eyes to one side

crafty

slight smile, eyes to one side, low eyebrows

uncertain

wobbly mouth, upturned eyebrows, question mark

Suggested language work

N.B. The teacher should extend the suggested exercises to at least six sentences.

Level 1

Draw and number six simple expressions on the board. Ask the children to make six sentences, following the table.

He She	looks	happy. sad. angry. sleepy.

Level 2

As in the Level 1 exercises, draw six pictures and write this table alongside.

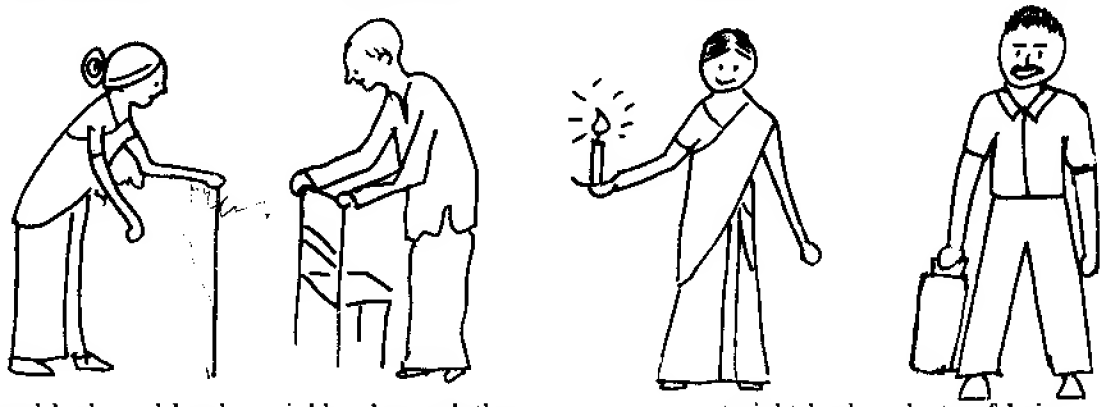
He She	is	pleased frightened cross	because	the dog has drunk the milk. her friend has come. he can see a snake.

Level 3

Draw six expressions on the board. Give your pupils the following task :

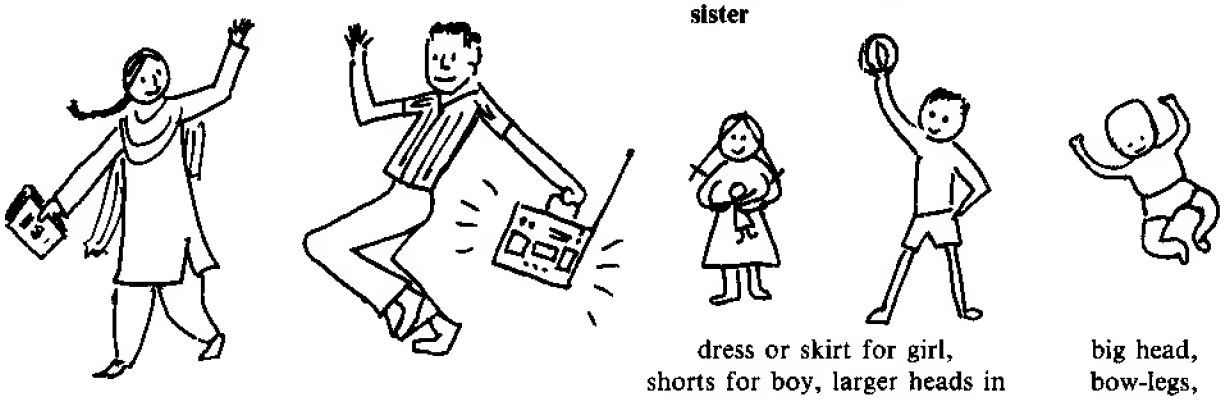
Write a story about one of these people. Why is she/he feeling like this ? What do you think will happen next ?

The family



bowed body and heads, wrinkles, loose clothes, bald head for men

straight backs, plenty of hair, more modern clothes



stylish clothes, lively movements

dress or skirt for girl, shorts for boy, larger heads in proportion to rest of body.

big head, bow-legs, eyes two-thirds of way down face

Suggested language work

Level 1

Draw six pictures and number them. Also write up the following table. Ask the children to make six sentences.

N.B. Give each member of the family a name and write it beside the appropriate picture.

Mother Pradeep Uma Grandfather	is	old. young. middle-aged.

Level 2

Draw six or eight pictures on the board. Number them. Write the table up. The children ask and answer the questions.

What is		grandmother father etc.		holding?
Is	he she	holding it in	his her	right or left hand?

Level 3

Draw the family on the board. Ask your pupils to tell you about each one while you draw.

Grandfather does not like the noise of music on the radio. The family argue about it over dinner. What does each member of the family say?

Workers, their tools and materials

artist

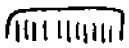
(air hostess; see pilot)

brush

palette

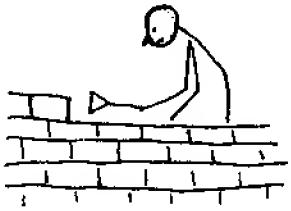
barber

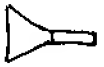
scissors



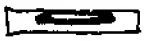
comb

brick-layer





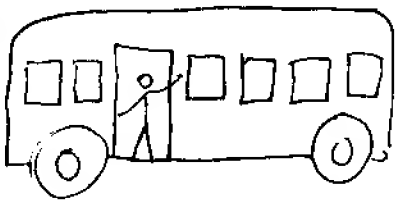
trowel



spirit level

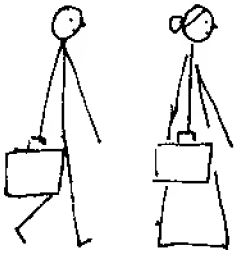
plumb-line

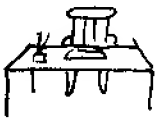
bus-conductor



tickets

business person



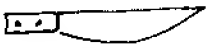


desk and chair

computer

butcher

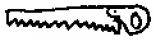
meat



knife

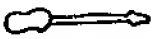
carpenter

nail

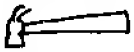


saw

screw

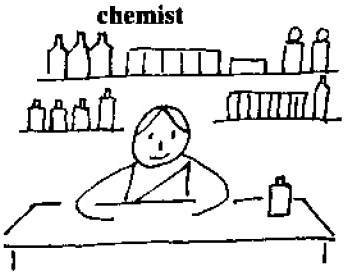


screw-driver

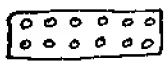


hammer

chemist



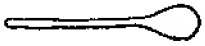
medicine



pills

cook

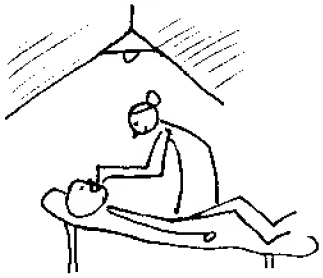
pan

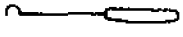


spoon

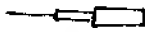
(See page 31
for other kitchen tools)

dentist





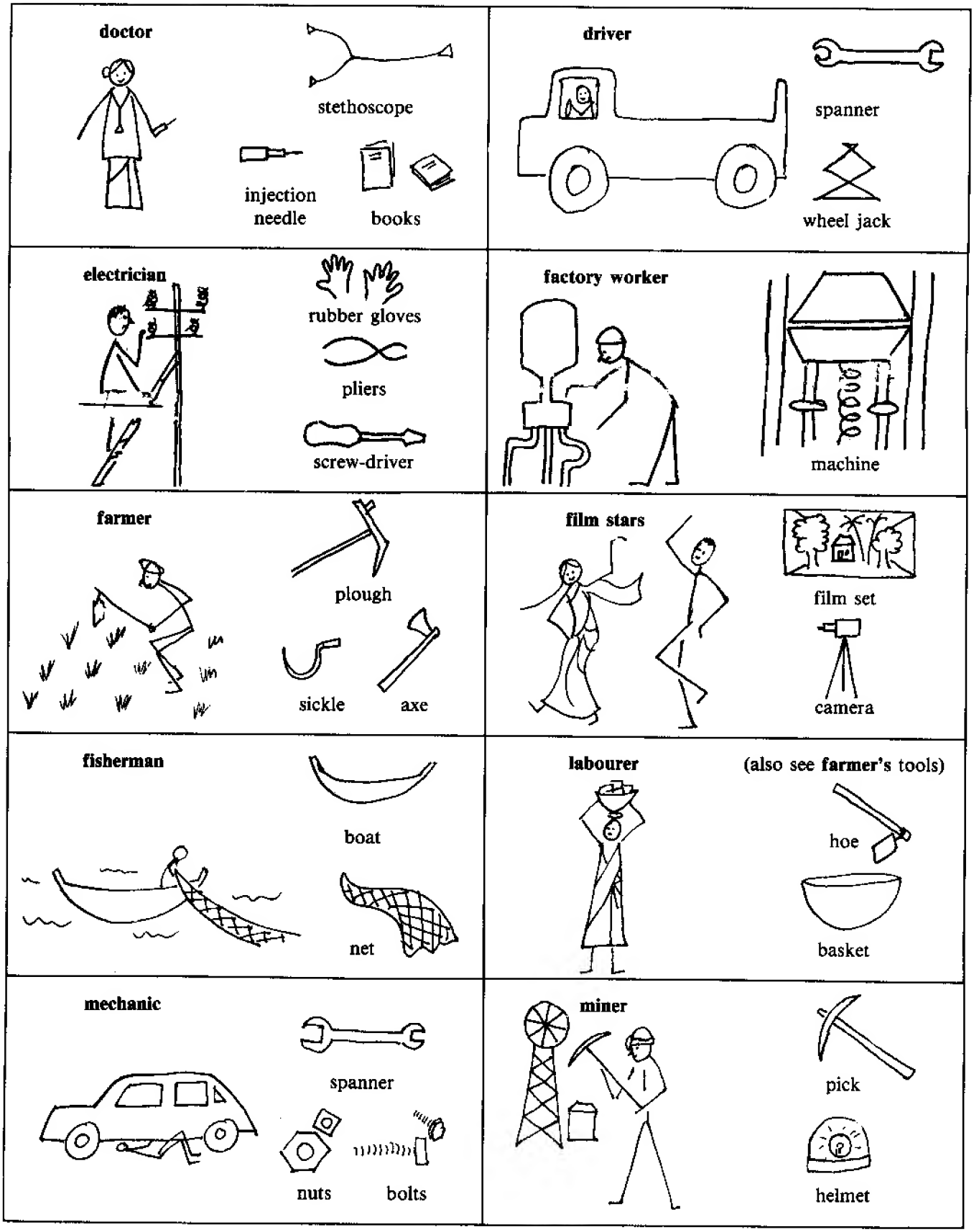
pick



injection needle

light

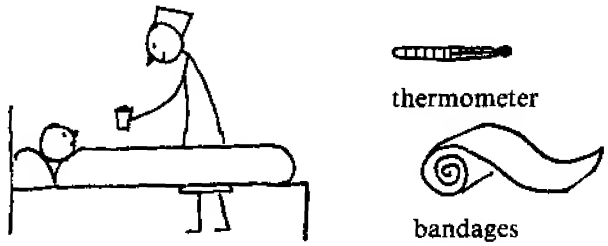
Workers, their tools and materials (continued)



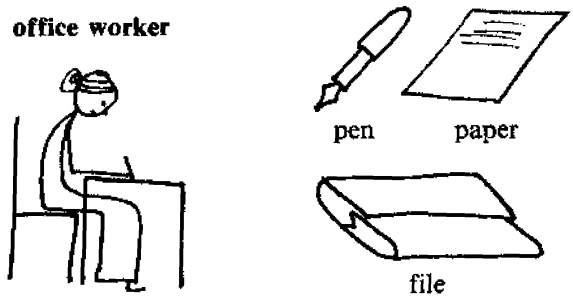
Workers, their tools and materials (continued)

musicians

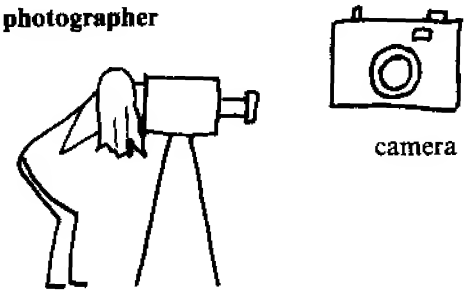
nurse (also see **doctor's** tools)



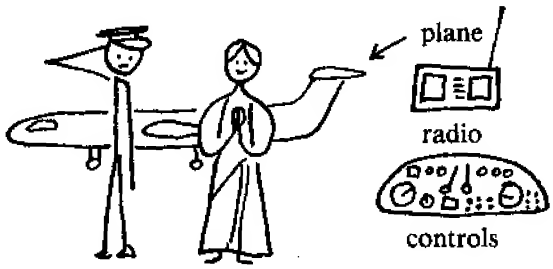
office worker



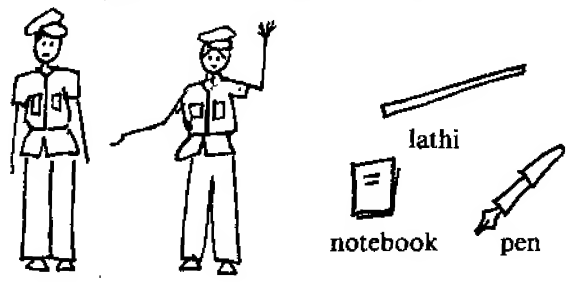
photographer



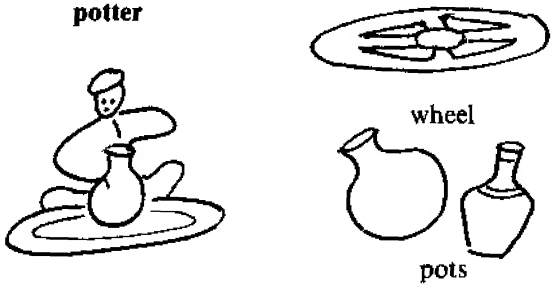
pilot and air hostess



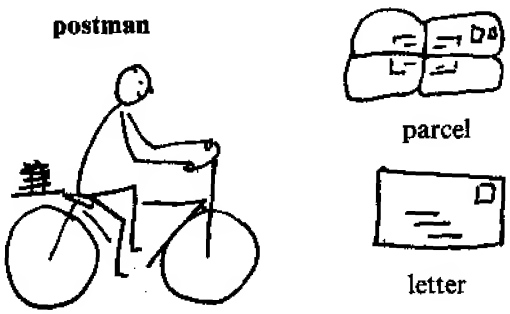
policeman and **policewoman**



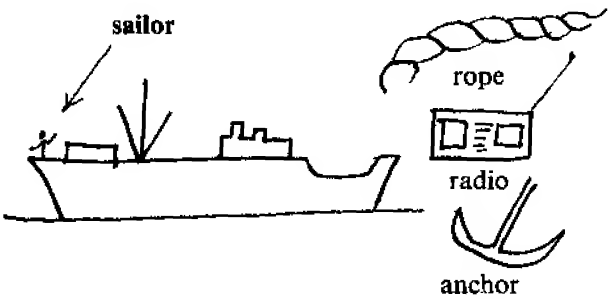
potter



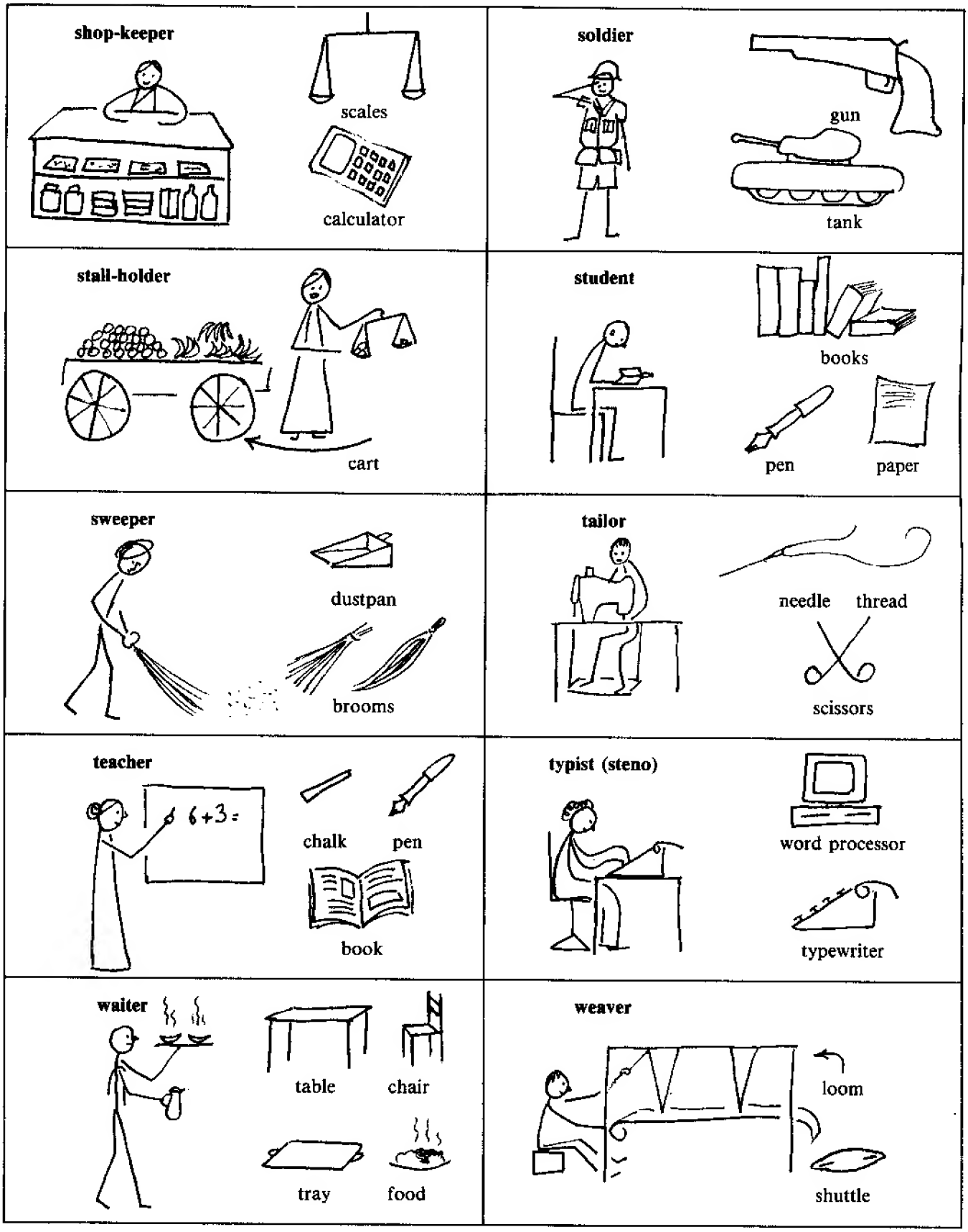
postman



sailor



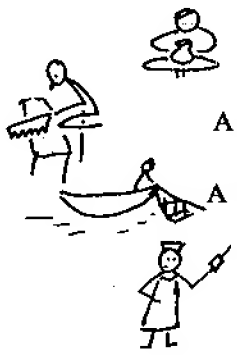
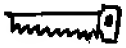
Workers, their tools and materials (continued)



Workers, their tools and materials (continued)

Suggested language work

Level 1 Write a table like this on the board. Use at least six drawings.

 A potter A carpenter A fisherman A nurse	uses	an injection needle.  a net.  a wheel.  a saw. 

Level 2 Draw three workers on the board. Then write up the following model. Ask the children to write three paragraphs, following the pattern.

A [pilot / waiter / teacher] works in a [school. / plane. / restaurant.] [He / She] [flies planes. / teaches children. / serves food.]

[He / She] works [from 11 am to 3 pm and 6 to 11 pm. / from 9 am to 4 pm. / at all times.]

[He / She] wears [a uniform. / no uniform.]

[He / She] uses [chalk. / a tray. / a radio.]

I [would / wouldn't] like to be a [pilot. / waiter. / teacher.]

Level 3

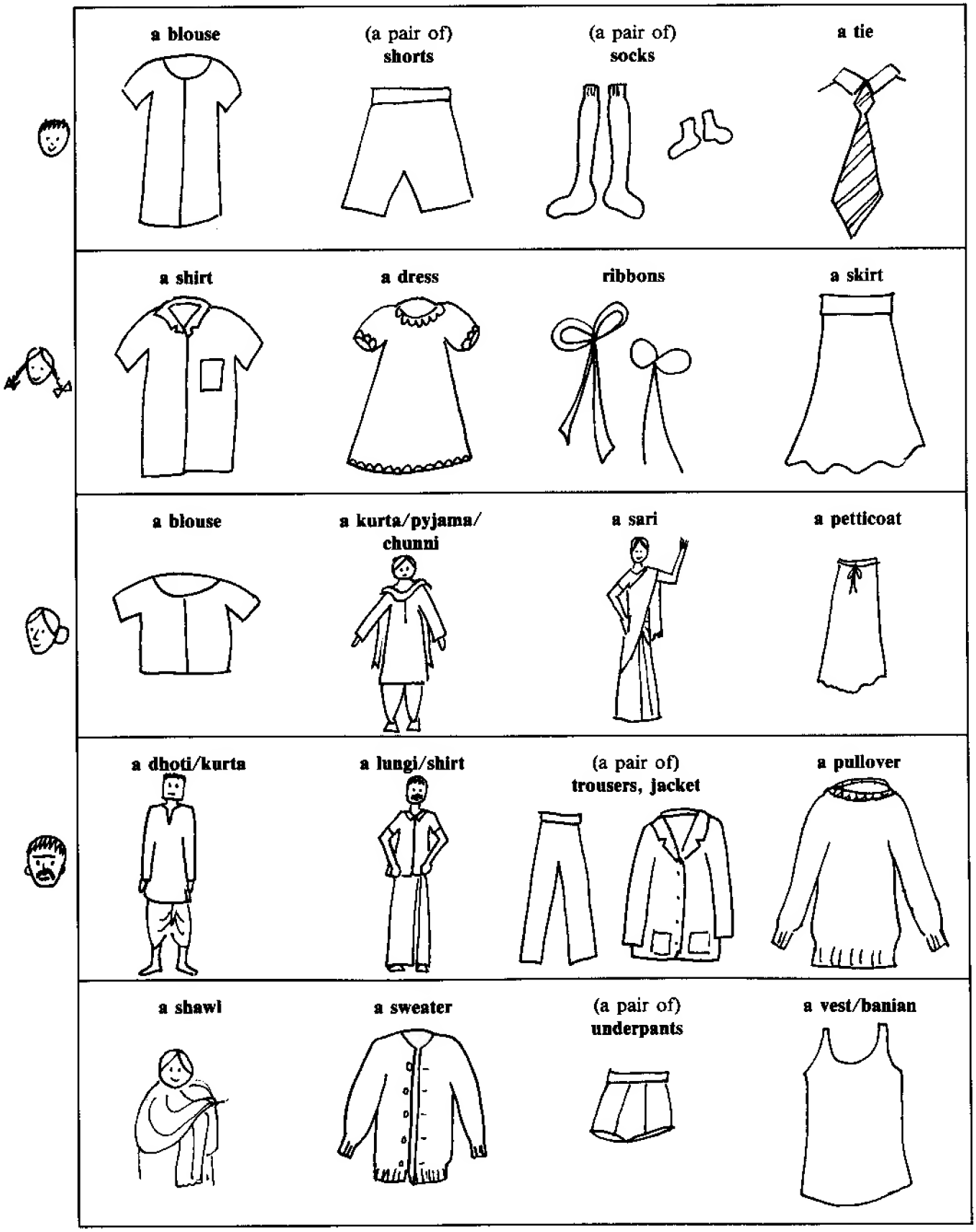
Draw a number of workers on the board. Ask your students to tell you about them while you draw.

1. Write a poem, using the structure, 'If I were a ..... I'd need .....'.
2. What do you want to be when you grow up? Why? What *don't* you want to be? Why not?

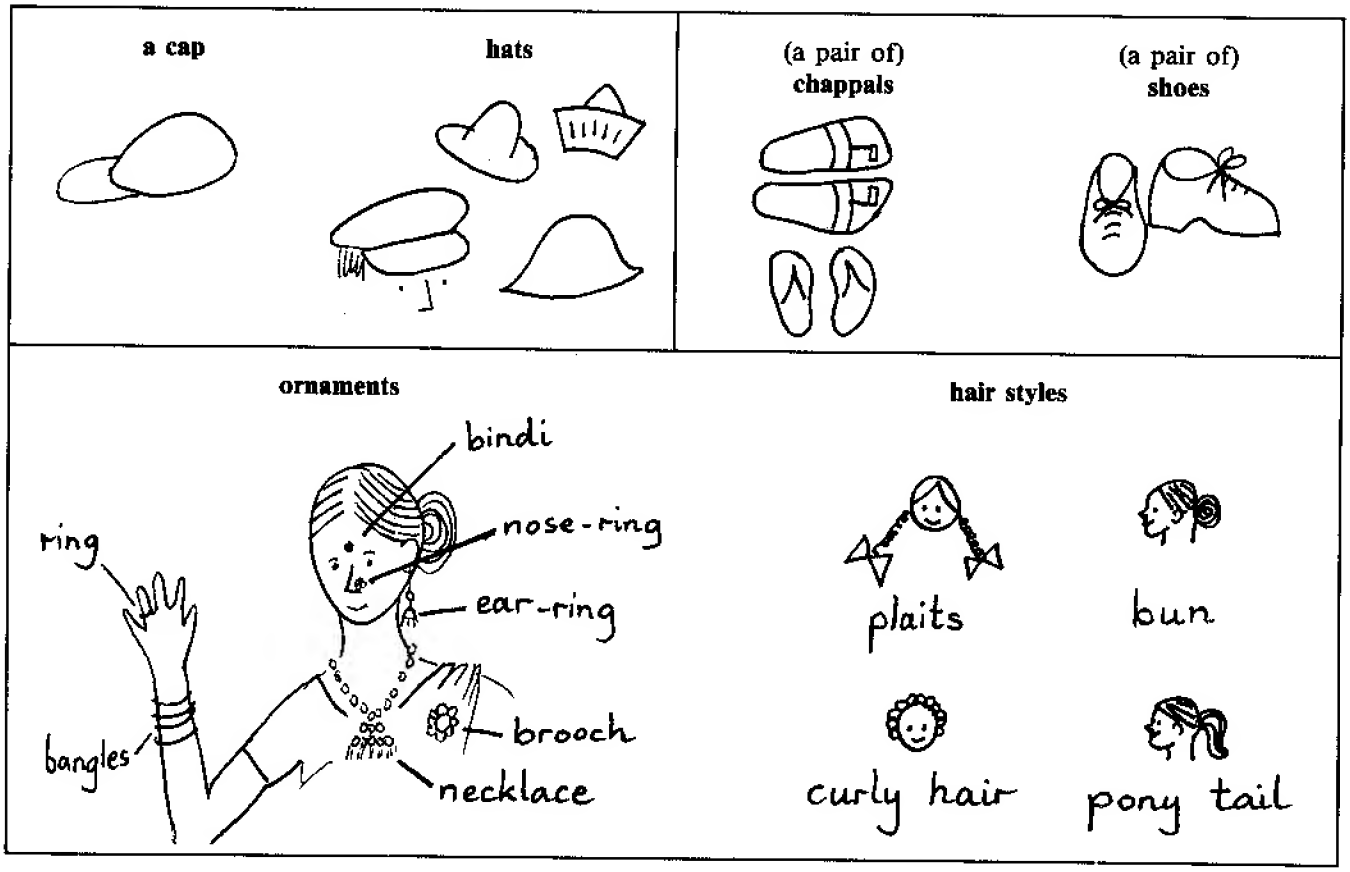
GAME

- Cut 12 to 16 pieces of card—the size of playing cards.
- Draw a different worker on each card.
- Divide the class into two teams and keep the score on the board.
- Call a member of Team A to come up and pick a card.
- He/She must mime the worker to his/her own team. If they guess correctly, they get a point. Team B then have a turn.
- The team which guesses most workers correctly wins the game.

People's clothes



People's clothes (continued)



Suggested language work

Level 1

Draw a number of children's clothes on the board. Label each one. If necessary, write *a pair of* _____.

Write this table alongside :
Talk about the clothes the children are wearing and their colours.

What are you wearing today ?

I am wearing a | green / red / yellow / blue / white | skirt. / shirt. / dress. / pair of shorts. / blouse.

What is | Rohini / Ahmed / Daljit / Shereen | wearing today ?

| He / She | is wearing _____.

Level 2

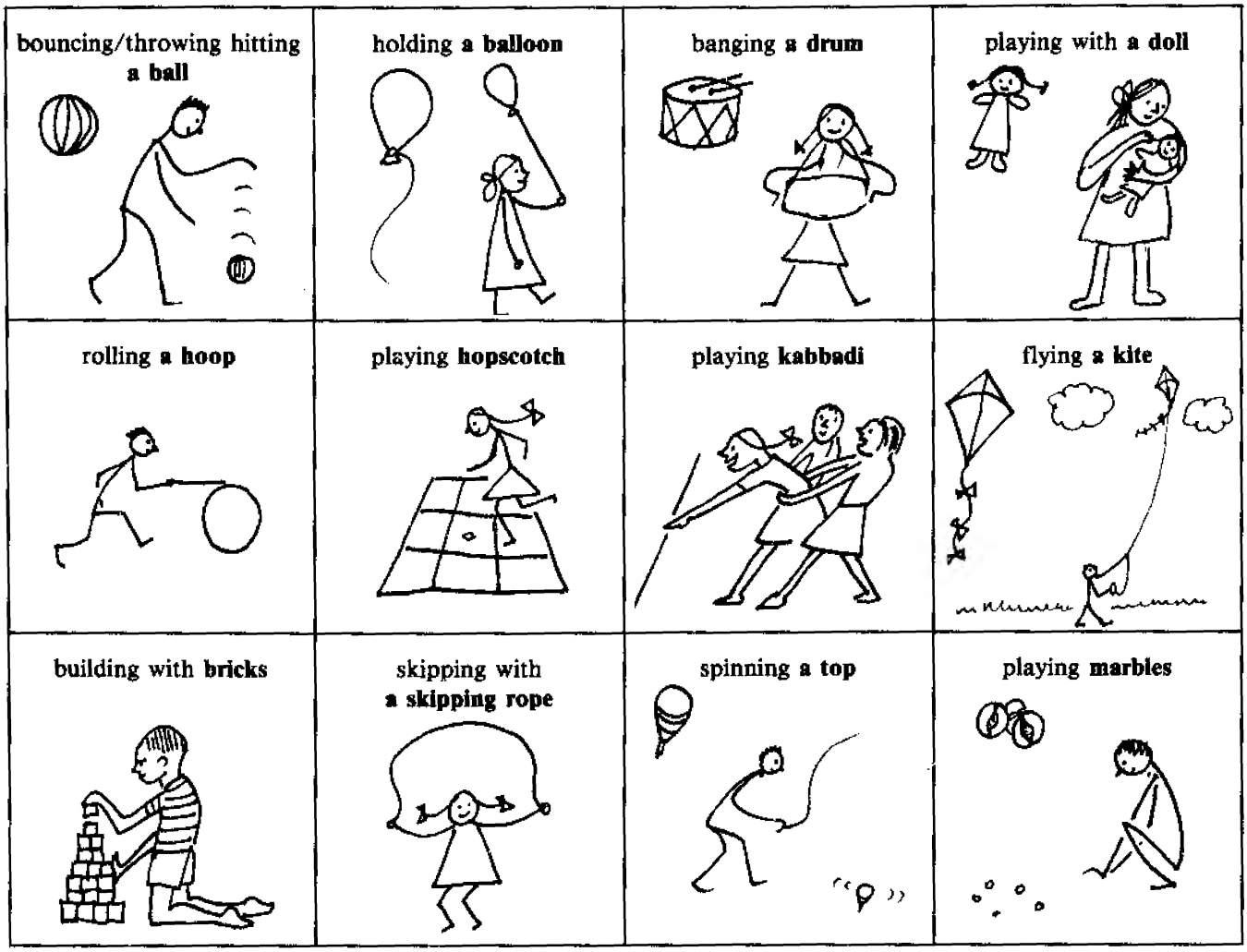
Draw a fully clothed boy, man and woman on the board. Ask the children to describe each one in their own words. If possible, colour the clothes. Use stripes, spots etc. Encourage the children to use adjectives like *smart, loose, stripey, frilly.*

Level 3

Tell one pupil to stand with his/her back to the board. Draw an article of clothing on the board, e.g. a dress. Tell other members of the class to describe what you have drawn without naming it. This will help your pupils learn to use precise language. When the word has been guessed, call another pupil to stand with his/her back to the board and guess what you have drawn.

N.B. There is a word-search on clothes on page 64.

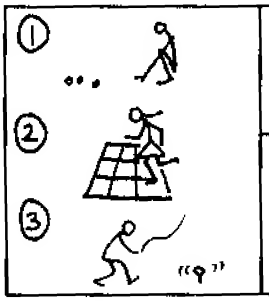
Children's games and toys



Suggested language work

Level 1

Draw at least six pictures on the board. Write up the table. Ask the children to make questions and answers, following the pattern.



What is		he / she	doing ?
He / She	is	spinning a top. / playing marbles. / playing hopscotch.	

Level 2

Draw eight toys on the board and extend the exercise shown.

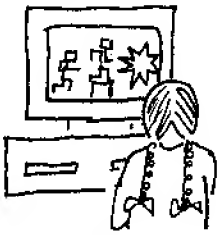
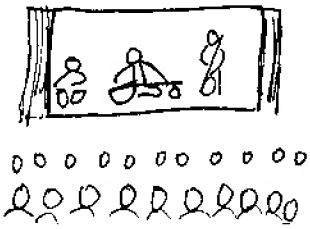
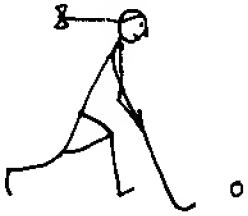
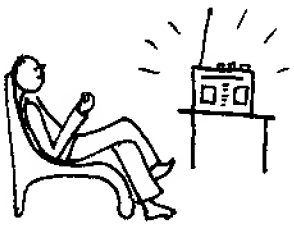
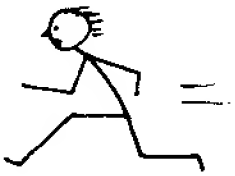
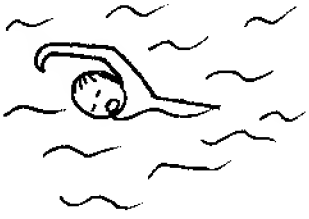
1. A kite	is / are	made of	wood. / paper. / glass. / plastic.
2. Marbles			
3. A ball			
4. A top			

Level 3

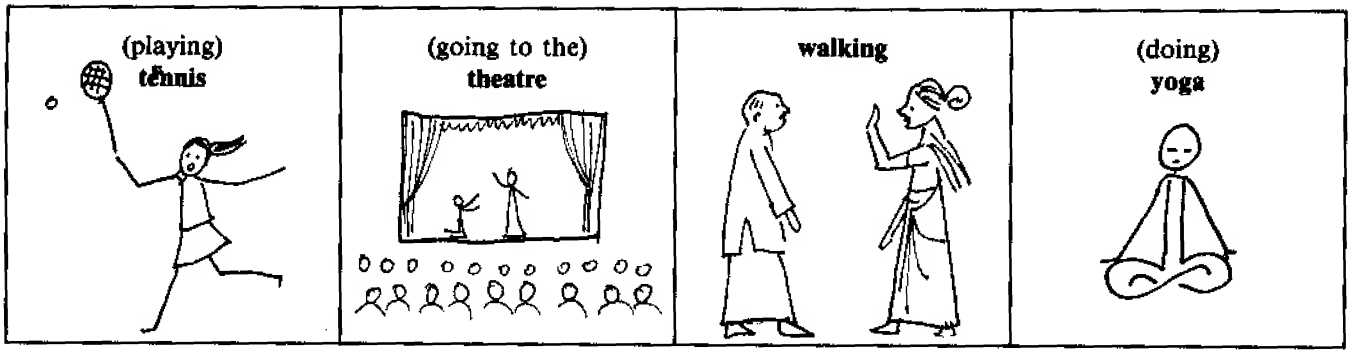
Draw a game of hopscotch or kabbadi.

Ask the children to describe in detail the rules for playing hopscotch or kabbadi.

People at leisure

(going to the) **cinema** 	(playing) **computer games** 	(going to a) **concert** 	(playing) **cricket** 
cycling 	**dancing** 	**drawing** 	**driving** 
(playing) **hockey** 	**jogging** 	**painting** 	(taking) **photographs** 
(listening to the) **radio** 	**reading** 	**running** 	**sewing** 
singing 	**stamp-collecting** 	**swimming** 	(watching) **television/videos** 

People at leisure (continued)



Suggested language work

Level 1

Talk about the hobbies each child has. Draw a few suitable pictures on the board and write up the table. Write children's names below the hobbies they enjoy. The children then make sentences about themselves. As a follow-up, each child can tell you what s/he does not enjoy.

Kiran Vanya Anjali Saif	enjoys doesn't enjoy	swimming. collecting stamps. cycling. playing cricket.

Level 2

Draw some games on the board and write up a table like this :

You need	sticks, two goals and a ball bats, stumps and a ball a racquet, net and a ball a camera and film	to play to take	cricket. tennis. photographs. hockey.

Level 3

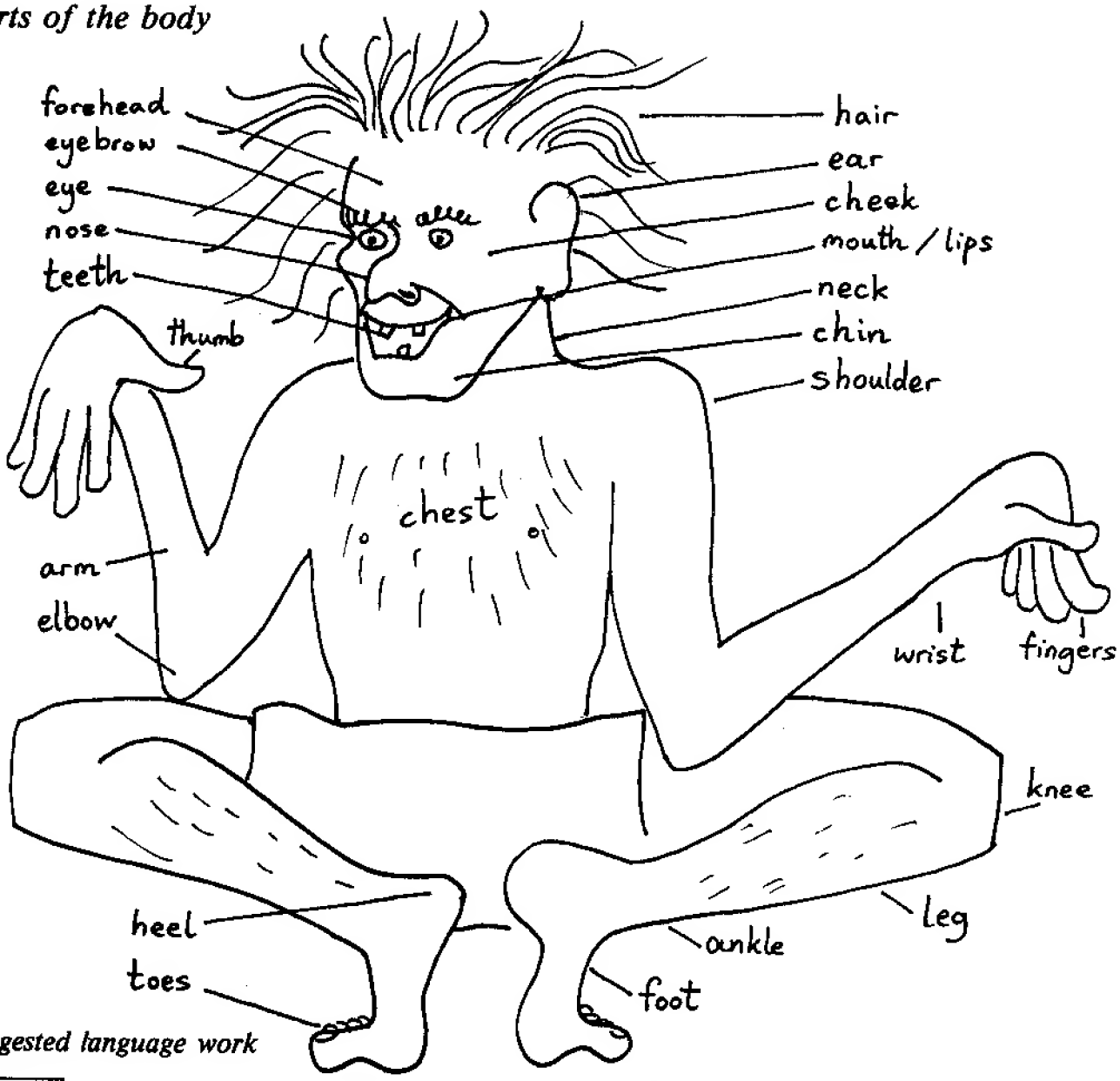
Game : Draw what I say

Play this game after drawing a few sample leisure activities on the board :

1. The children work in pairs. Each one has a sheet of paper. They place a big book or a bag between them so that they cannot see each other's sheet of paper.
2. One child draws a picture of someone playing a game or going out to the cinema/theatre etc. The child who draws the picture tells his/her partner to draw exactly the same *without looking*, e.g. :

   'Draw a woman. She's throwing up a tennis ball with her left hand. She's going to hit the ball with a racquet in her right hand. She's wearing a white skirt and has a long plait. Her mouth is open. Her left foot is behind her right foot and is half off the ground.'
3. Since this is a cooperative game, not a competitive one, there are no 'winners', but the pairs with the most similar pictures have done best.

Parts of the body



Suggested language work

Level 1

Draw a monster on the board (much more fun than a nice little boy or girl!) Only label the most commonly used parts of the body. Write the following table up beside him.

The monster	sees hears touches eats walks smells	with his	legs. eyes. mouth. nose. hands. ears.

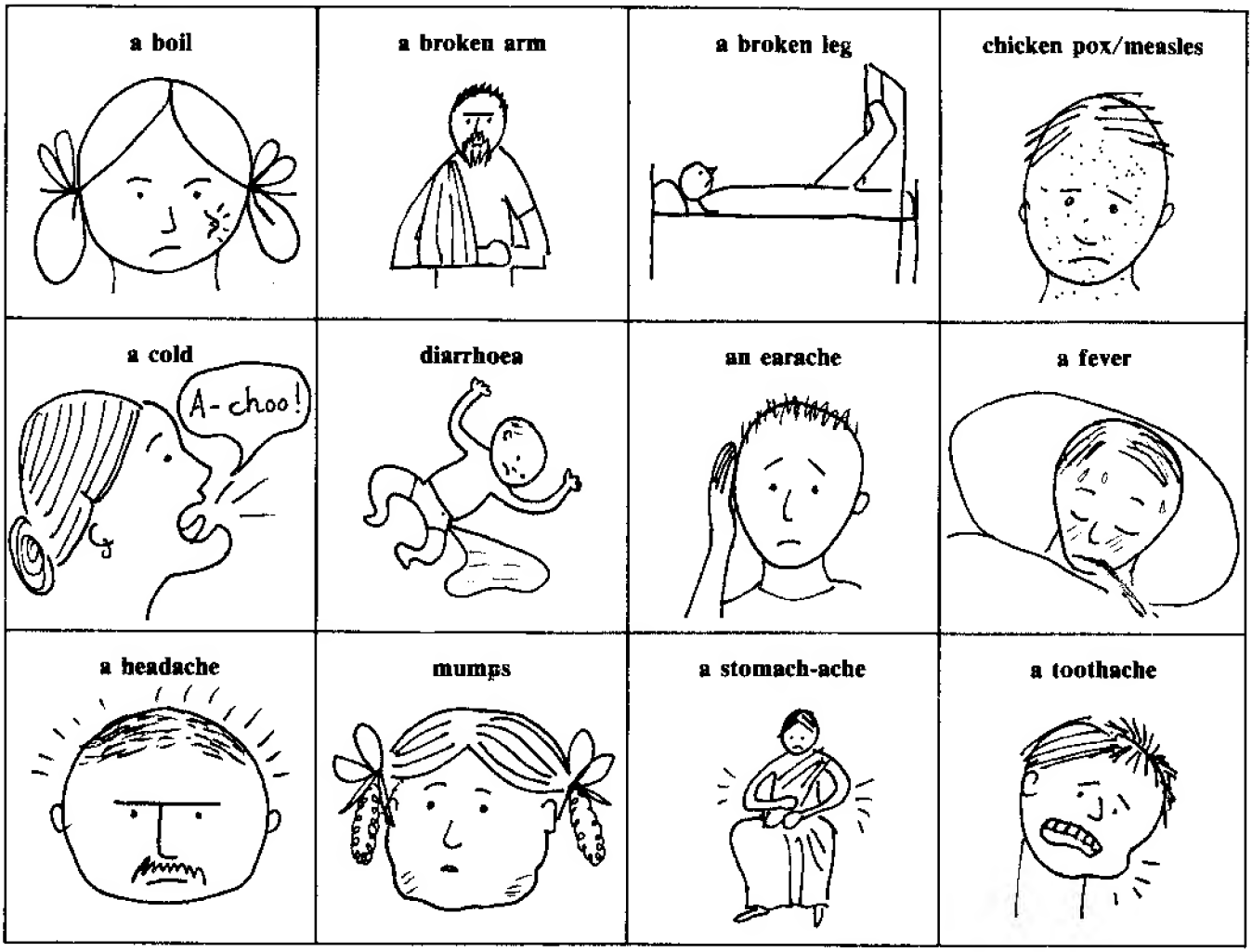
Level 2

Draw a monster of your own on the board. Ask the children to describe it, using an adjective for each part of the body, e.g. 'The monster has long hair, big ears, a hooked nose, fat fingers, small feet' etc.

Level 3

The children write a poem about a monster in the night. Draw a monster picture to get their imaginations going!

Injury and sickness



Suggested language work

Level 1

Draw six pictures of sick people on the board and number them. Write up the table and get the children to make six questions and answers.

What's the matter with this		girl? boy? woman? man?
He's She's	got	_____ .

Level 2

Draw a number of sick people on the board and label them. Ask your pupils to form a number of questions and answers according to this table :

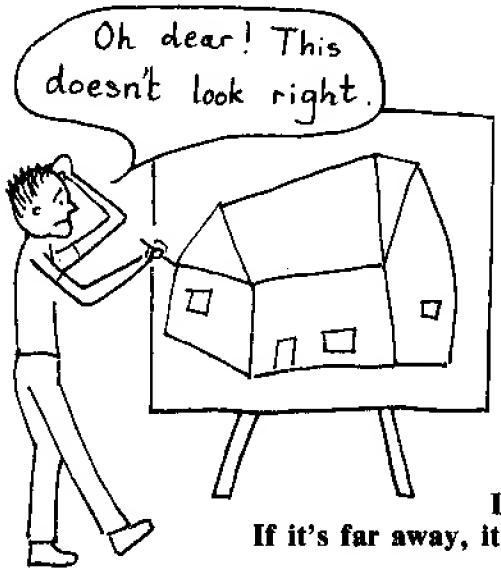
What should you do if you have _____ ?	
You should	bathe it in hot water. drink a lot of sugar/salt water. go to the doctor/dentist. put it in plaster etc.

Level 3

Draw a number of sick people on the board. Ask your pupils to write a dialogue between a doctor and one of the patients. Some of these can be acted out in class—the funnier, the better!

BUILDINGS

How to draw buildings

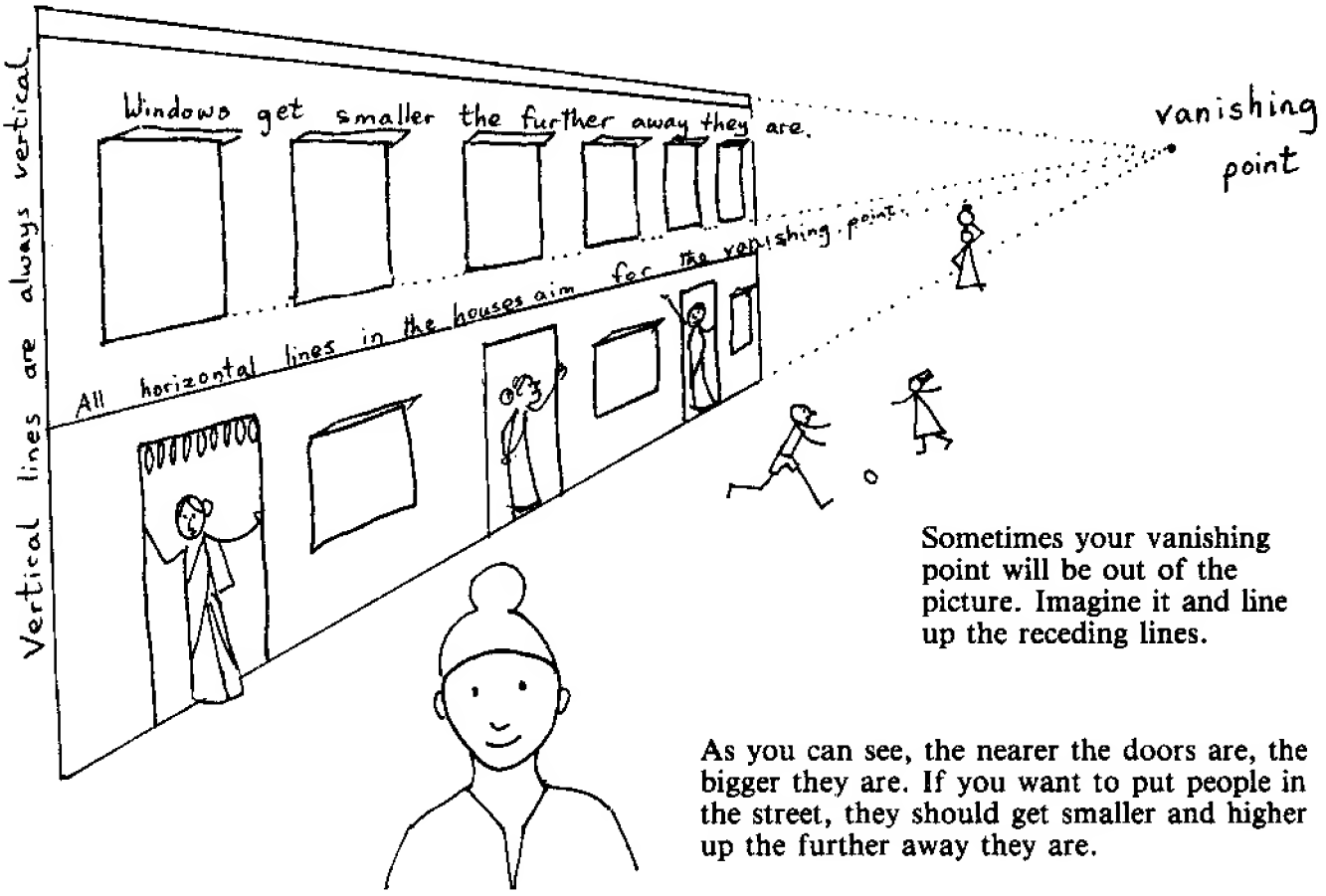


When people try to draw buildings, they often get confused by **perspective**. How do you draw buildings when they turn corners? How do you draw a picture when some things are near the viewer, some things further away? Remember this rule :

If it's near, it's big.
If it's far away, it's small — and higher up the board.

If you want to draw a line of buildings receding into the distance, try this. Draw the tops and bottoms between two imaginary lines which meet at an imaginary 'vanishing point'.

Other features of the house should line up with the vanishing point if they are going *away* from the eye. Vertical lines should not change.

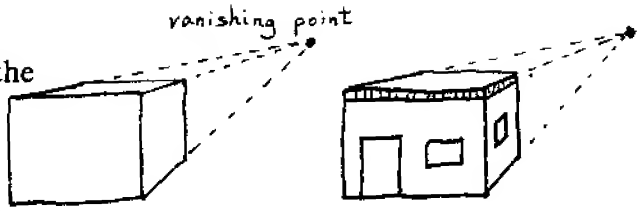


Sometimes your vanishing point will be out of the picture. Imagine it and line up the receding lines.

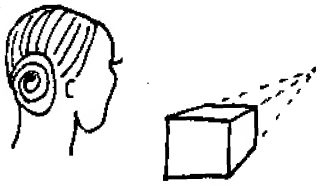
As you can see, the nearer the doors are, the bigger they are. If you want to put people in the street, they should get smaller and higher up the further away they are.

How to draw buildings (continued)

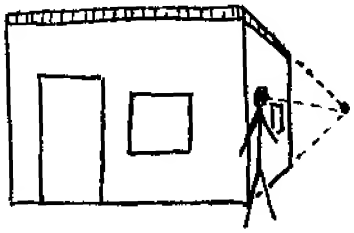
Before you start drawing houses, look at a box. Do you notice that the front lines of the box (the lines facing you) are vertical and horizontal? Only the lines which go away from your eye meet at the vanishing point.



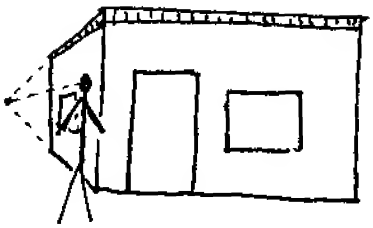
It doesn't take much effort to turn the box into a house.



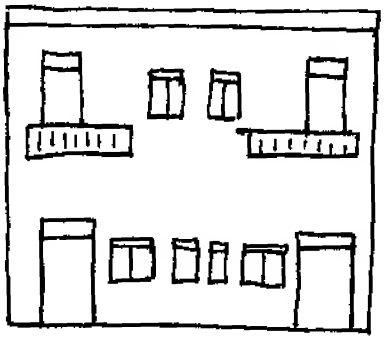
Since we usually look *up* at the roof of a house, not down on it, the vanishing point is best below the level of the roof—like this :

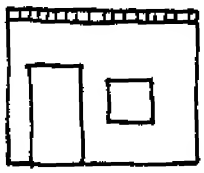


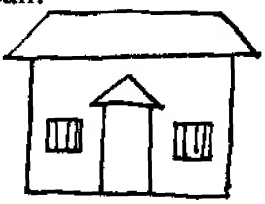
Of course, if you are standing to the left of the house, you'll see it from the other side :



If you find this all rather difficult, you don't have to use perspective or vanishing points at all. Just draw the house face on. Then you won't get in a muddle—and the children will still understand what you mean!







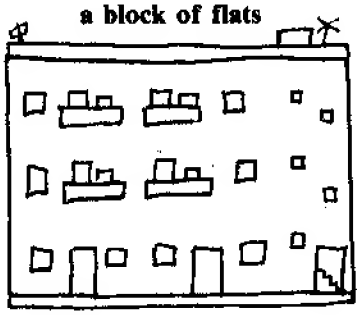
If you decide *not* to use perspective, you must decide which angle to draw from. For example, it is easier to draw a chair or shoes from the side.

But it is easier to draw a television or a fan from the front.

Types of building

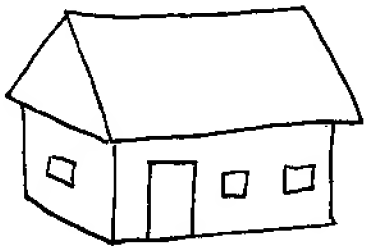
HOMES

a block of flats

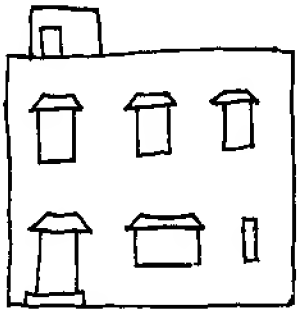


a bungalow

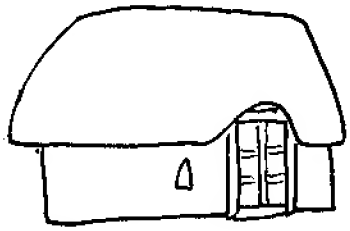
a house



a house



a hut

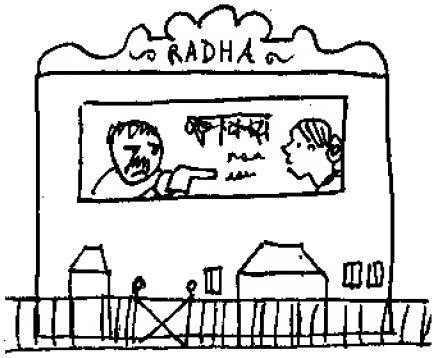


a tent

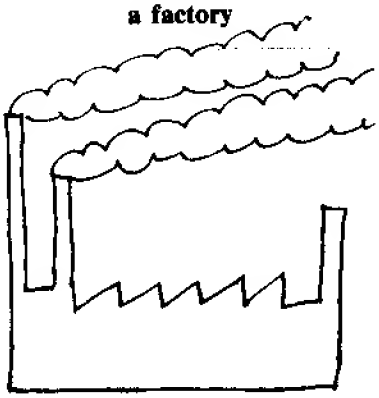
PUBLIC PLACES

a bank

a cinema

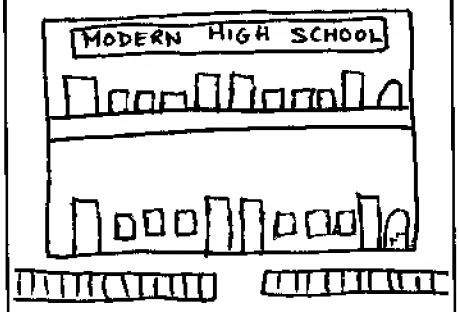


a factory



a post office

a school

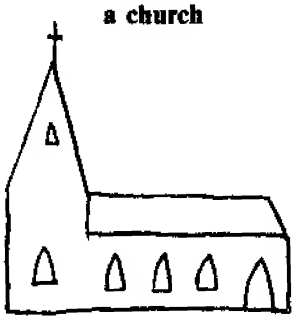


a shop

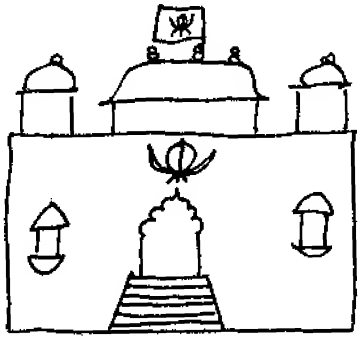
Types of building (continued)

PLACES OF WORSHIP

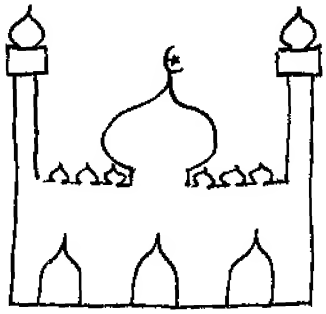
a church



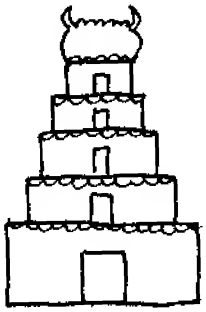
a gurdwara



a mosque



a temple



Suggested language work

Level 1

Draw and number pictures of buildings. Ask the children to make sentences using this table :

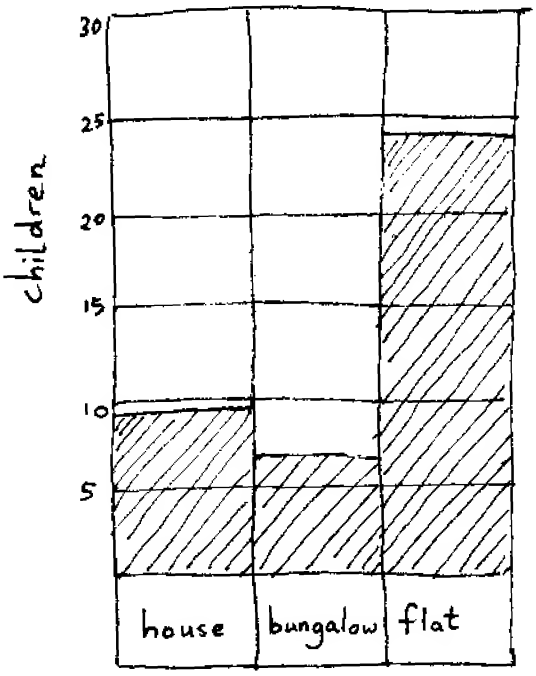
People	study in buy things in get money from watch films in live in buy stamps in	a _____ .

Level 2

Ask each child in the class whether he/she lives in a house, bungalow or flat. Record the numbers of children who live in each type of housing. Then make a graph like this :

The children can then answer questions (written up on the board) like these :

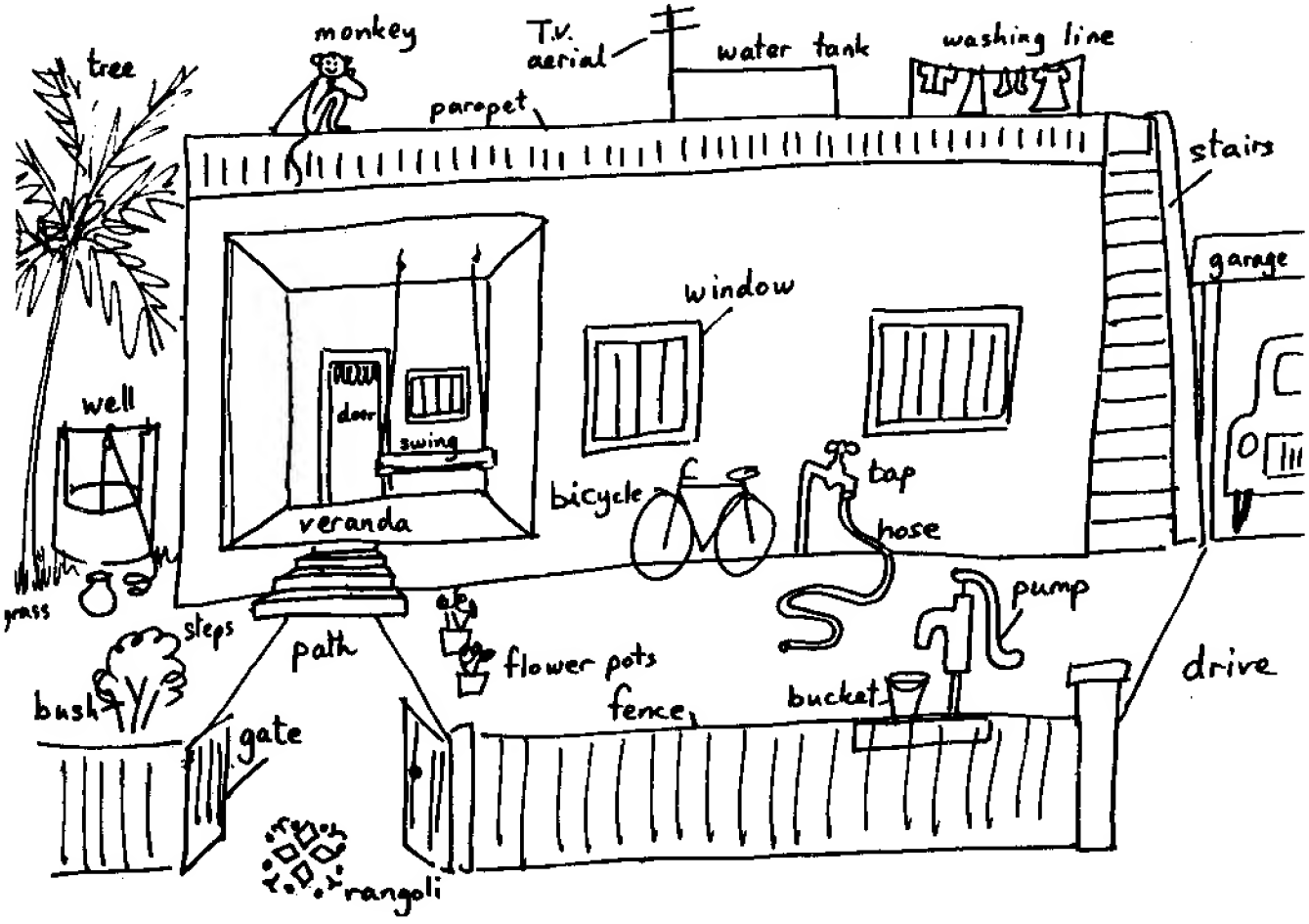
1. How many children live in a house/bungalow/flat?
2. How many more children live in a flat than in a house?
3. Where do most/the fewest children live?



Level 3

Draw the four main places of worship on the board. Ask the children to tell you who are the main prophets of each religion, what their holy books are and what their main beliefs are. Write these in note form below each picture. Then ask your pupils to write four paragraphs about the main religions of India.

A house from the outside



Suggested language work

Level 1

Practise the use of prepositions. Draw and label a house and ask the children to make sentences following this table :

The	bush rangoli swing monkey bucket	is	beside between near on under	the veranda and the door. the pump. the path. the parapet. the gates.

Many more sentences like these can be made.

Level 2

Ask the children to imagine that they are detectives. A crime has just been committed outside the house. They should describe the scene of the crime in detail.

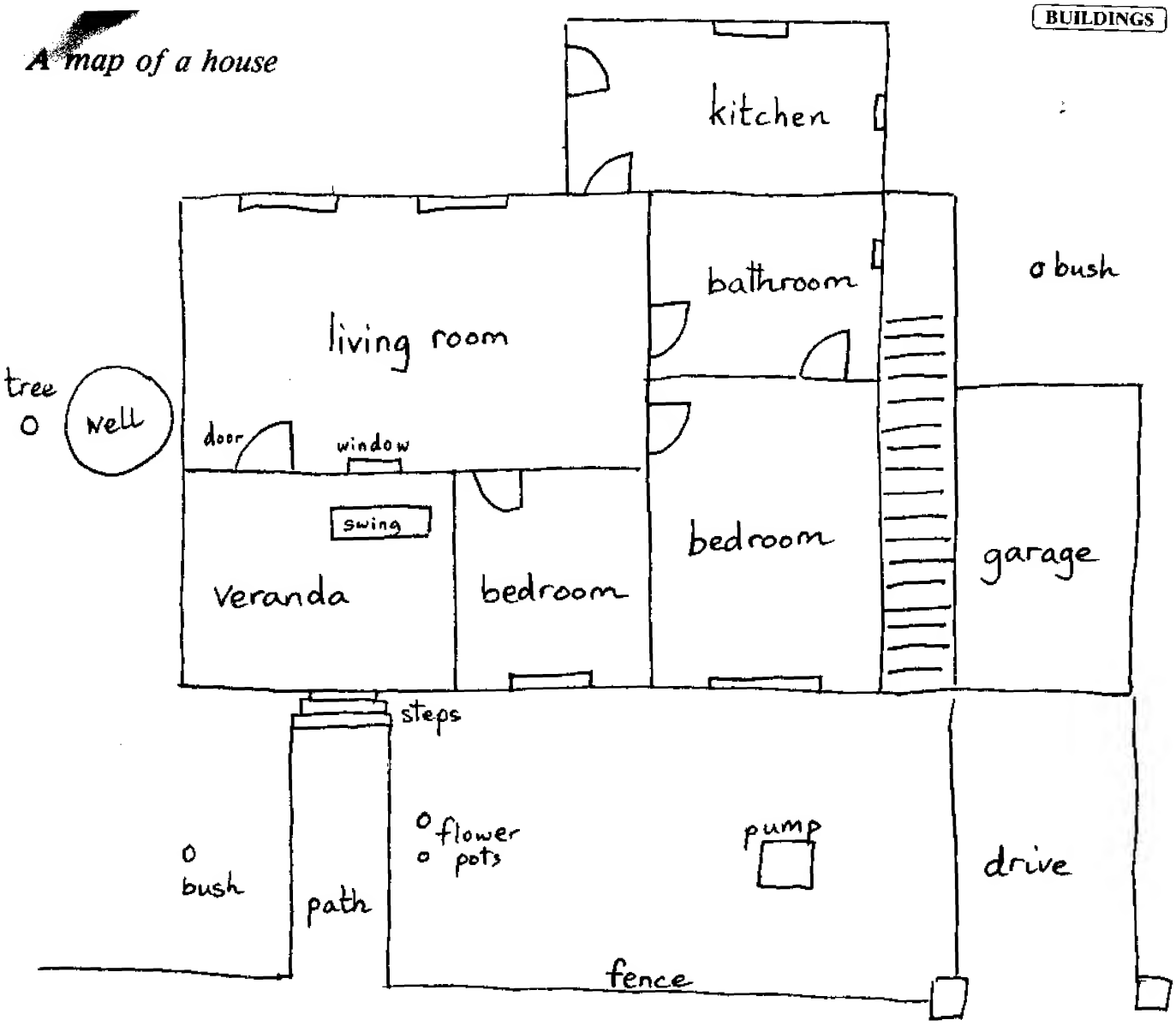
Level 3

Tell your pupils to imagine that they are the naughty monkey on the roof. What would they do? For example, they might say,

If I were the naughty monkey, I would throw the pot in the well. I would ride the bicycle down the street, I would turn on the hose and put it through the window, etc.

Get them to think of other naughty ideas!

A map of a house



Suggested language work

Level 1

Draw the map on the board. It is a map of the house on page 29. Discuss the things we do and don't do in each room, using this table :

Remember that many children will eat *and* sleep in the living room.

We We don't	relax eat cook sleep wash	in the _____.

Level 2

Draw the map on the board. Ask different children to tell you how to get from one room to another. Write a model like this :

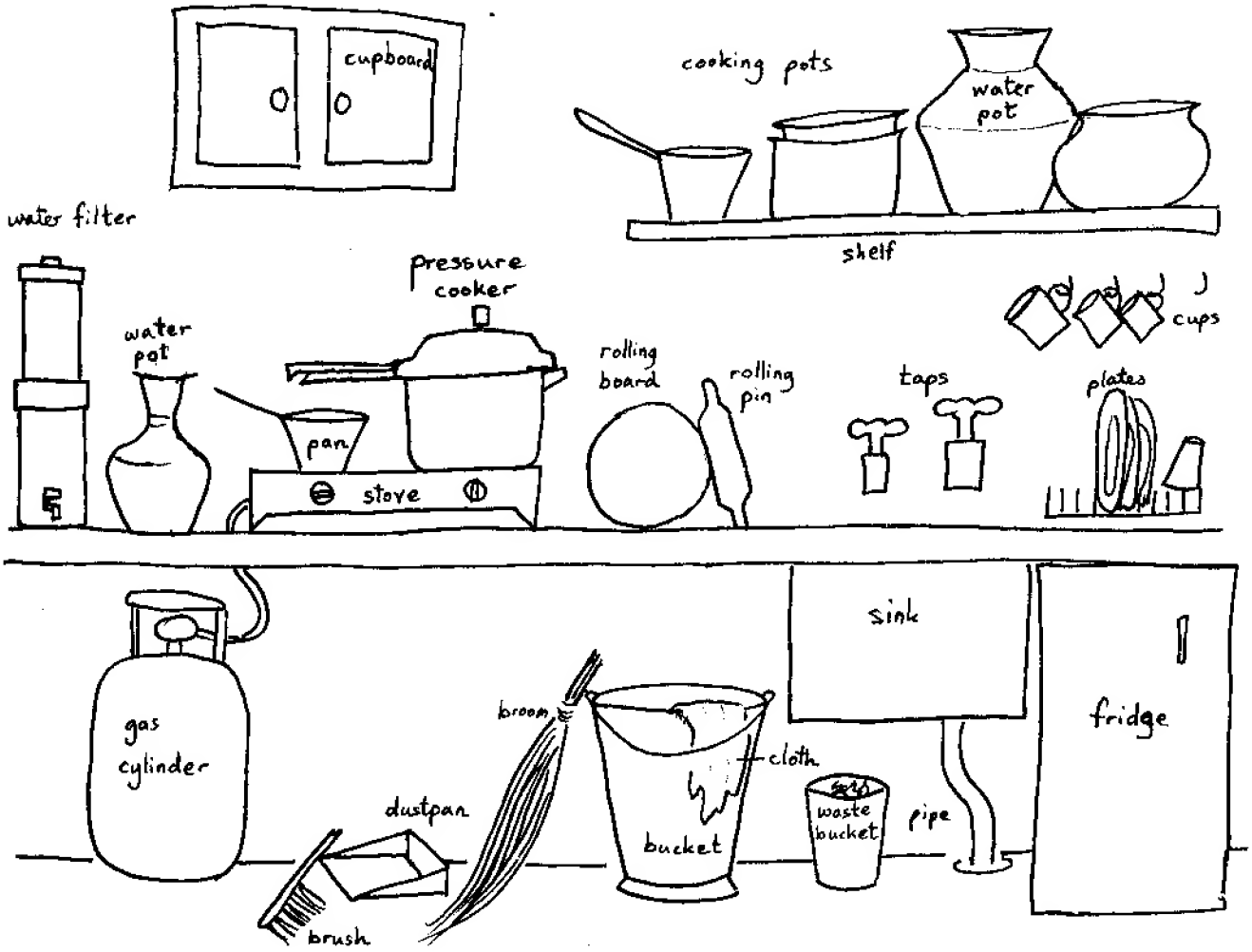
To go from the gate to the kitchen, go straight up the _____. Go up the _____. Go across the _____, through the door and into the _____ room. Turn _____. Go through the living room. The door to the kitchen is on your left/right.

Level 3

Draw the map on the board. Discuss whether it is a good plan for a house. Ask each of your pupils to plan their own ideal homes. When they have made their plans they should write why they want the kind of house they have designed.

N.B. For further maps, see pages 106-112.

The rooms of a house : the kitchen



Suggested language work

Level 1

Draw the picture on the board. Discuss the things you can and can't see. Write this table alongside the picture.

I	can can't	see	a waste bucket. a knife. a fridge. a fan. a spoon. a stove.

Level 2

Discuss the uses of the things in the picture. Write up a table like this beside the picture :

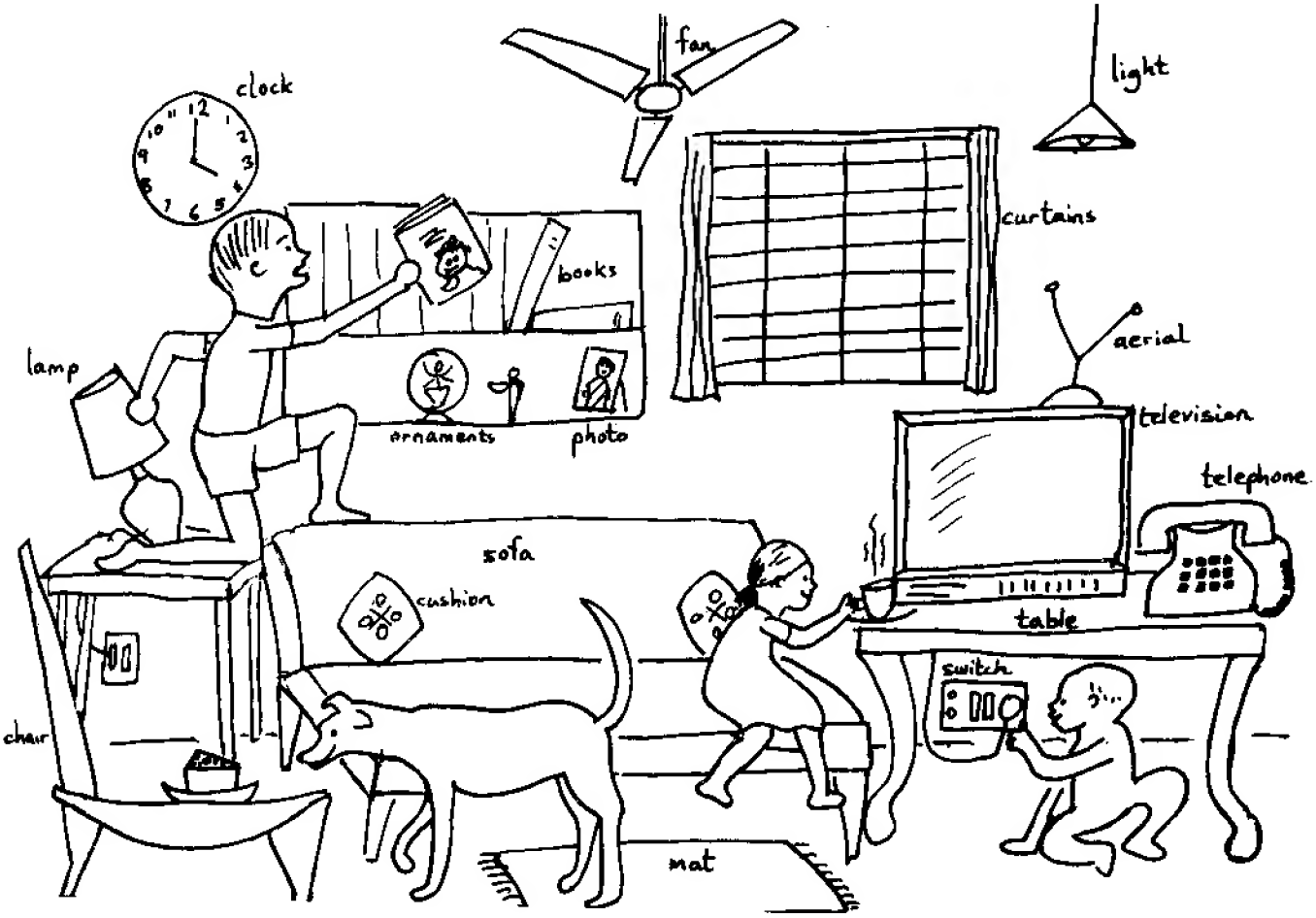
A	fridge rolling pin floor cloth etc.	is used for	rolling rotis. washing the floor. keeping food cool. etc.

Level 3

Draw the picture on the board. Ask your pupils to describe the maintenance work needed in the kitchen, using the structure *needs to be* + passive, e.g.

The gas cylinder The waste bucket The fridge	needs to be	defrosted and cleaned. emptied and washed. changed when it is empty.

The rooms of a house : the living room



Suggested language work

Level 1

Draw the picture on the board and discuss it. Ask the children to make questions and answers following the table.

Where is (the) _____?		
She He It	is on the	floor. table. sofa. wall.

Level 2

Draw the picture on the board. Discuss what is *going to* happen. Write up this table and ask the children to write their guesses.

The boy The dog The girl The baby The mother	is going to	spill the tea. fall off the sofa. have an electric shock. eat the cake. open the door.

Level 3

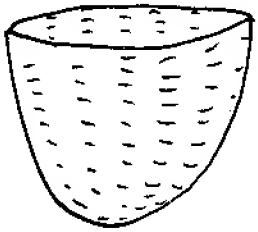
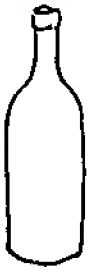
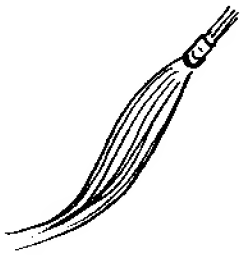
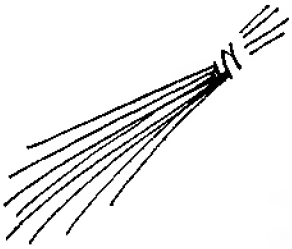
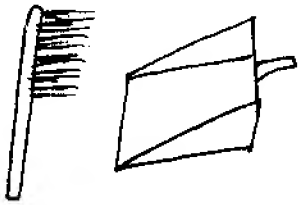
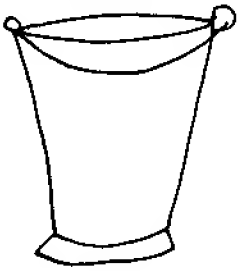
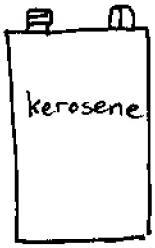
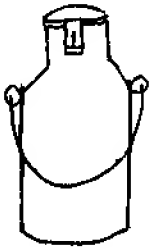
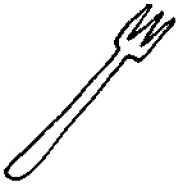
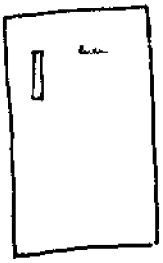
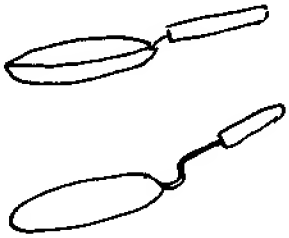
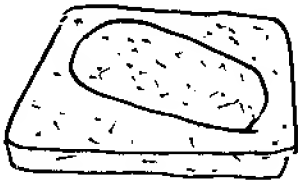
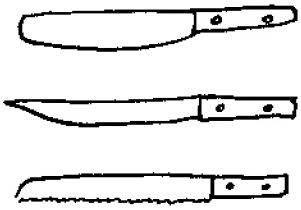
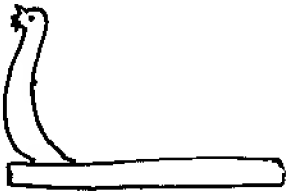
Draw the picture on the board and discuss what Mother *should* or *shouldn't* have done. Get the children to use this structure.

Mother	should have shouldn't have	locked the dog outside. covered the switch. put the tea on the table. left the children alone.

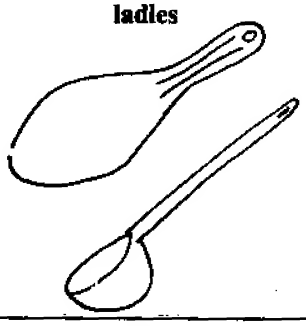
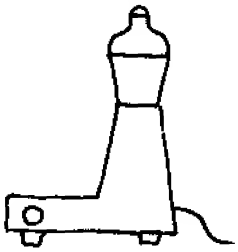
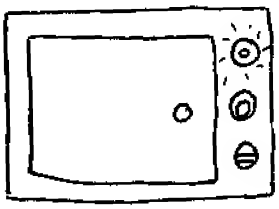
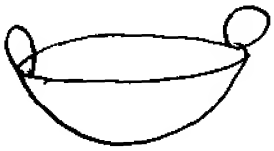
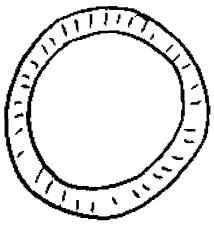
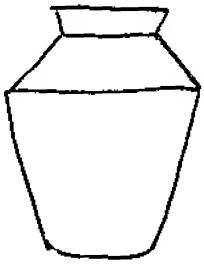
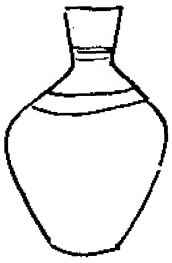
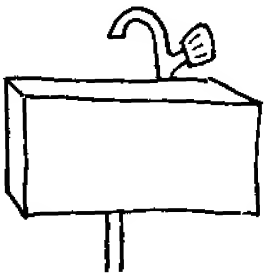
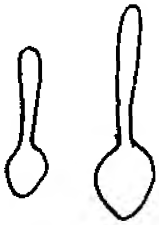
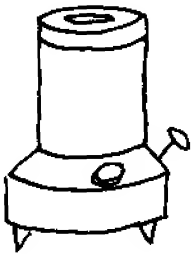
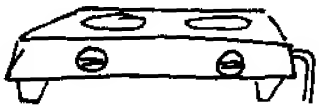
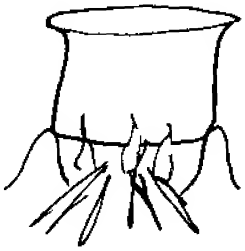
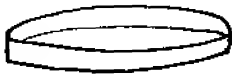
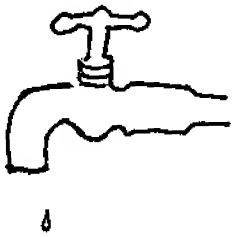
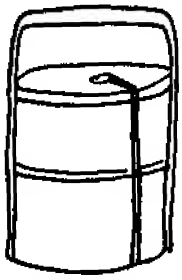
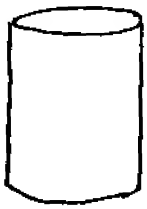
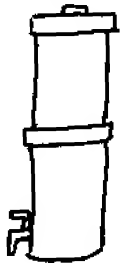
N.B. For a follow-up picture requiring the present perfect tense, see page 68.

Kitchen equipment

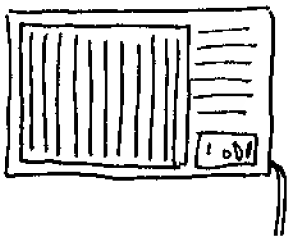
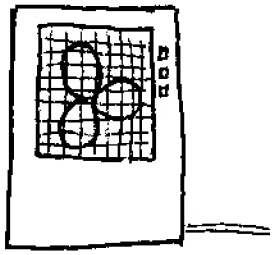
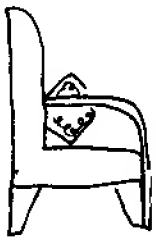
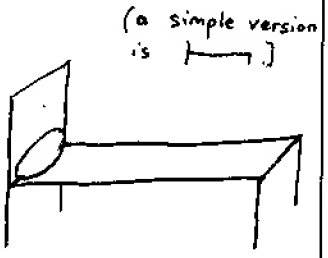
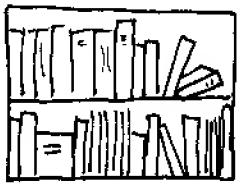
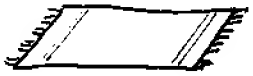
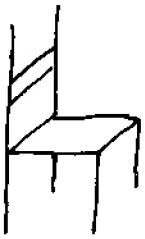
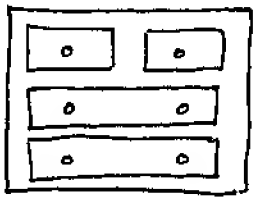
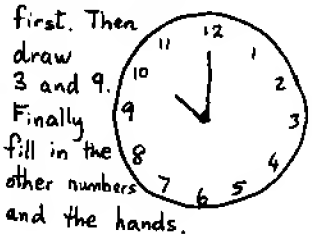
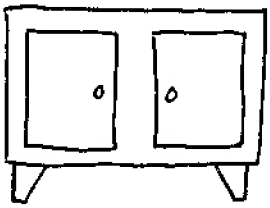
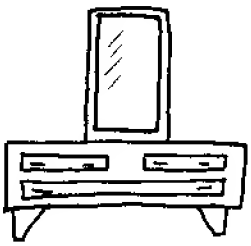
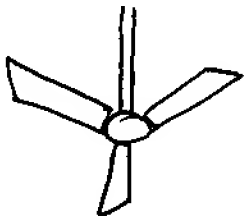
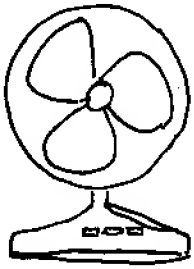
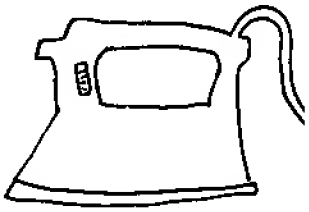
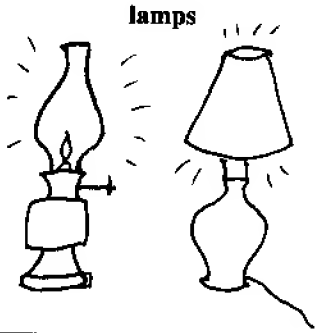
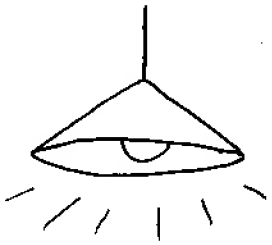
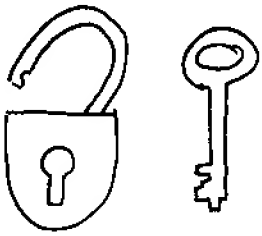
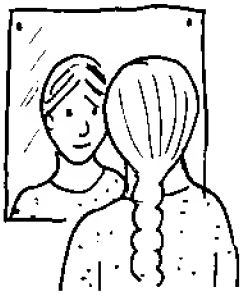
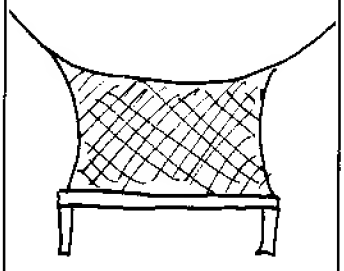
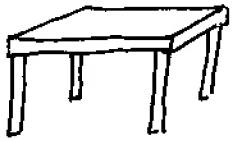
Note that the bottoms and tops of round objects are slightly curved.

a basket 	**a bottle** 	**a bowl** 	**a broom** (indoor) 
a broom (outdoor) 	**a brush and pan** 	**a bucket** 	**a can** (for kerosene) 
can (or **tin**) 	**a cup and saucer** 	**a fork** 	**a fridge** 
frying pans 	**a glass** 	**a grinding stone** 	**a jar** 
a jug 	**a kettle** 	**knives** (hand-held) 	**a knife** (floor) 

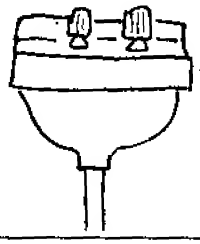
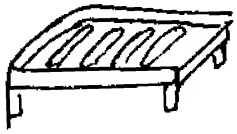
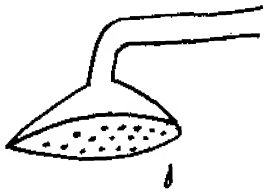
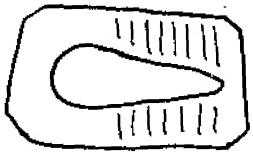
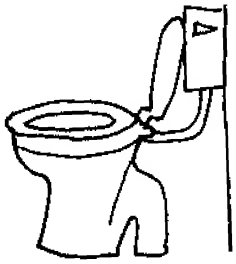
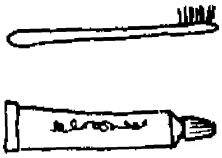
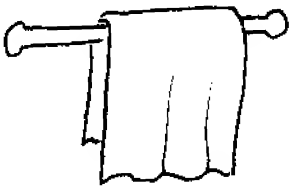
Kitchen equipment (continued)

ladles 	**a mixer** 	**a mug** 	**an oven** 
a pan 	**a plate** 	**a pot** (steel or brass) 	**a pot** (clay) 
a rolling pin and **board** 	**a saucepan** 	**a sink** 	**spoons** 
a stove (kerosene) 	**a stove** (gas) 	**a stove** (wood) 	**a thali** 
a tap 	**a tiffin carrier** 	**a tin** 	**a water filter** 

Household furniture and objects

an air conditioner 	**an air cooler** 	**an armchair and cushion** 	**a bed** 
a bookshelf 	**a carpet** (or mat) 	**a chair** 	**a chest of drawers** 
a clock 	**a cupboard** 	**a dressing table** 	**a fan** (ceiling) 
a fan (table) 	**an iron** 	**lamps** 	**a light** 
a lock and key 	**a mirror** 	**a mosquito net** 	**a table** 

Bathroom equipment

a basin (for **bucket** see page 33) 	**a drain** 	**a soap dish** 	**a shower** (for **tap** see page 34) 
a toilet (eastern style) 	**a toilet** (western style) 	**a toothbrush** and **toothpaste** 	**a towel** 

Suggested language work

Level 1

Play word Bingo like this.

1. Draw sixteen or twenty kitchen objects on the board. Ask the children to guess what you are drawing while you draw.
   Tell the children to write six words (well spaced out) of their own choice into their exercise books.
3. Give each child six counters. (They can each collect six pebbles from the playground. It is a good idea to keep a box of large seeds or matchsticks which you can use again and again.)
4. Call out the names of different things on the board and note what you have called for your own reference. If a child has written a word you have called, (s)he should cover the word with a counter.
5. The first child to cover all six words shouts, 'Bingo!'. Check that you have indeed called all six pictures. If so, that child has won. Continue in the same way to see who is second and third.

Level 2

Practise the use of commas in lists in an exercise like this :

Knives, spoons, fans, keys, pans, thalis and taps Toothbrushes, soap dishes, kerosene cans and water filters Cups, saucers, basins and toilets	can be made of	plastic. china. metal.

Level 3

Draw several objects on the board. Tell the children that they should describe them for a blind person. Write this up as a model :

A pan is roughly cylindrical. It has a lip curving outwards at the top. It is made of metal. It is used for cooking.

Your pupils could also describe a bottle, fridge, mug, chair or drain in the same way.

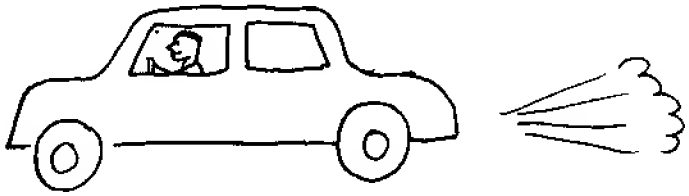
TRANSPORT

How to draw vehicles

The important thing is to keep the vehicles simple. Don't worry about door handles and bumpers. Let's look at a car. Start with the body.

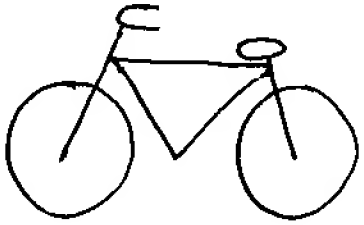
Then put in the wheels and join up the bottom.

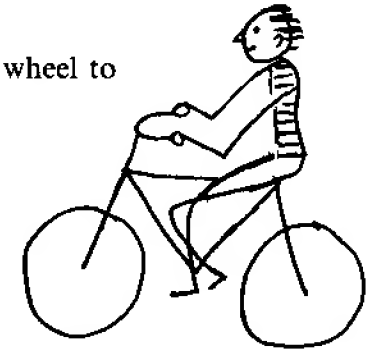
You don't have to put in windows if you're in a hurry but if you want them, here they are! A little cloud behind the car shows you what direction it is going in.



A bicycle is drawn round an upside down triangle. Put the wheels on either side of the triangle.

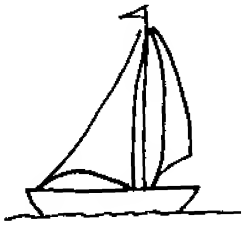
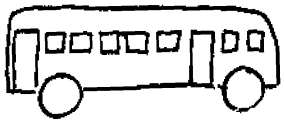
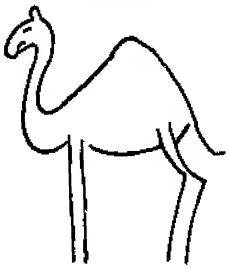
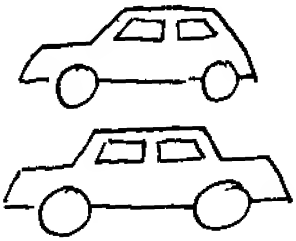
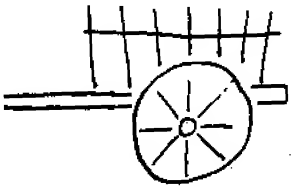
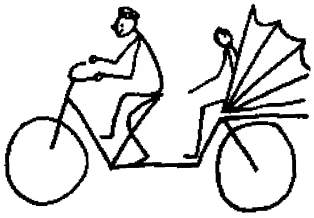
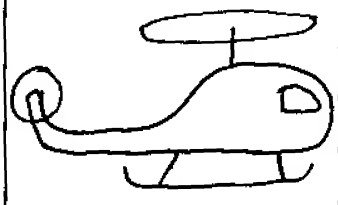
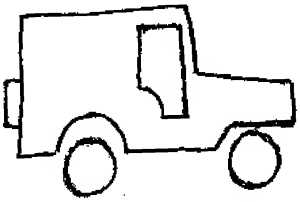
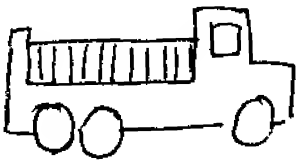
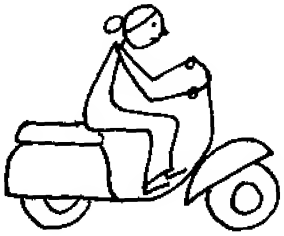
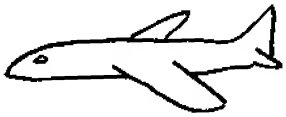
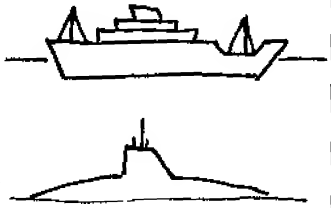
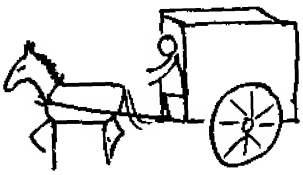
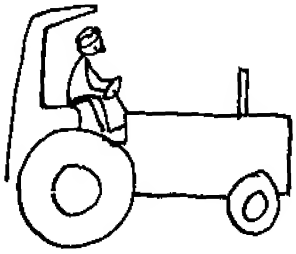
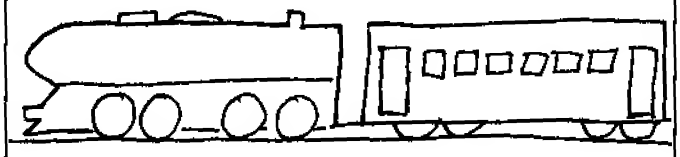
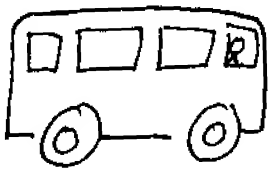
Join the front wheel to the handle bar and the back wheel to the saddle and your bicycle is finished.



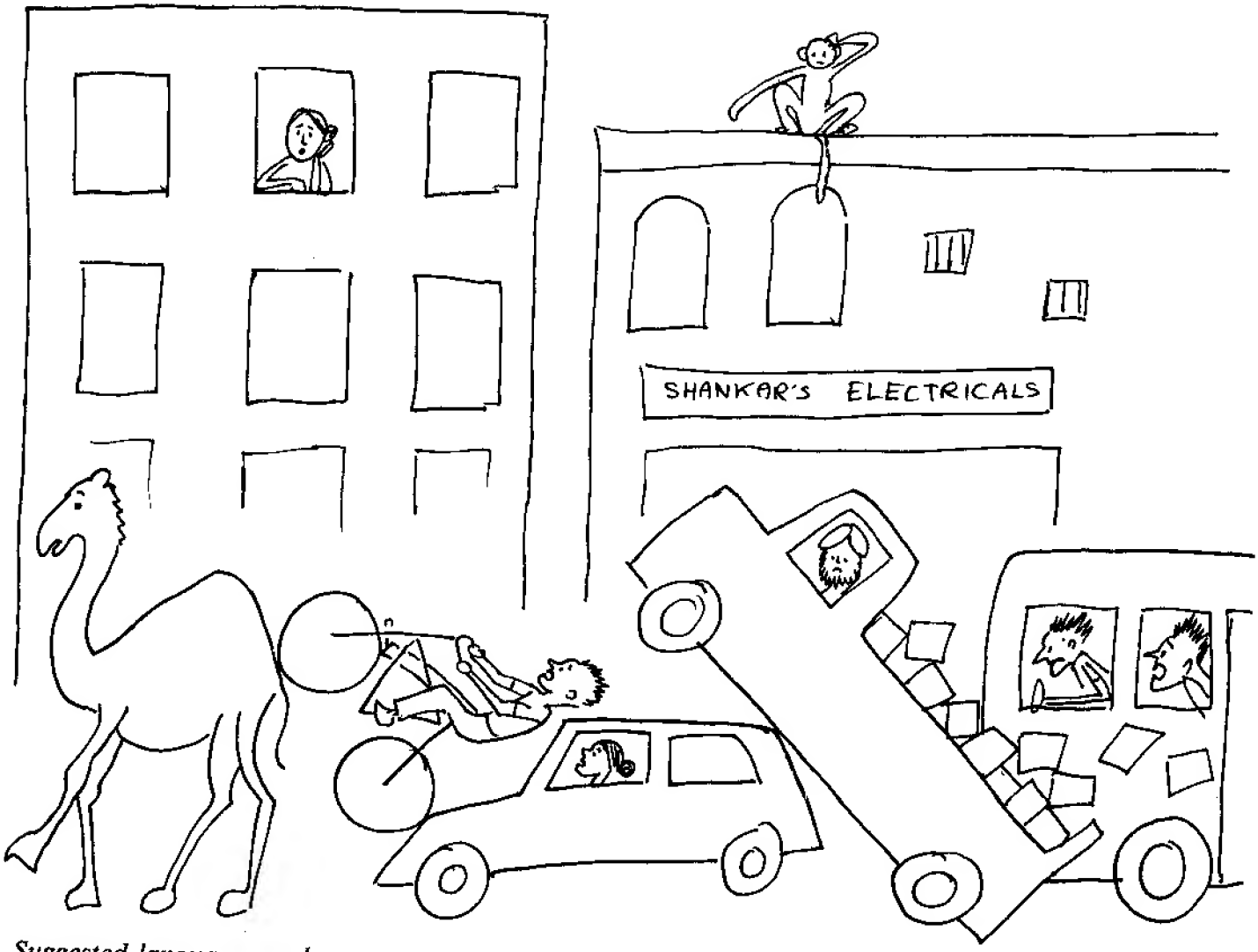


Don't worry about pedals, chain or spokes. Once you can draw a car and a bicycle, the other vehicles can be built up in the same way.

Different types of vehicle or transport

an autoricksha 	**a bicycle** 	**a boat** (river) 	**a boat** (sailing) 
a bus 	**a camel** 	**cars** 	**a cart** 
a cycle ricksha 	**a helicopter** 	**a jeep** 	**a lorry** 
a motor scooter 	**a plane** 	**a ship** and **submarine** 	**a tonga** 
a tractor 	**a train** 		**a van** 

A street scene



Suggested language work

Level 1

Draw a number of vehicles and label them. Ask the children to make sentences following this pattern :

A _____ has	no two three four six	wheels.

Level 2

Draw the above street scene on the board. Discuss what has happened. Ask the children to write questions and answers like this :

What has the	camel cyclist car driver lorry driver bus driver	just done?

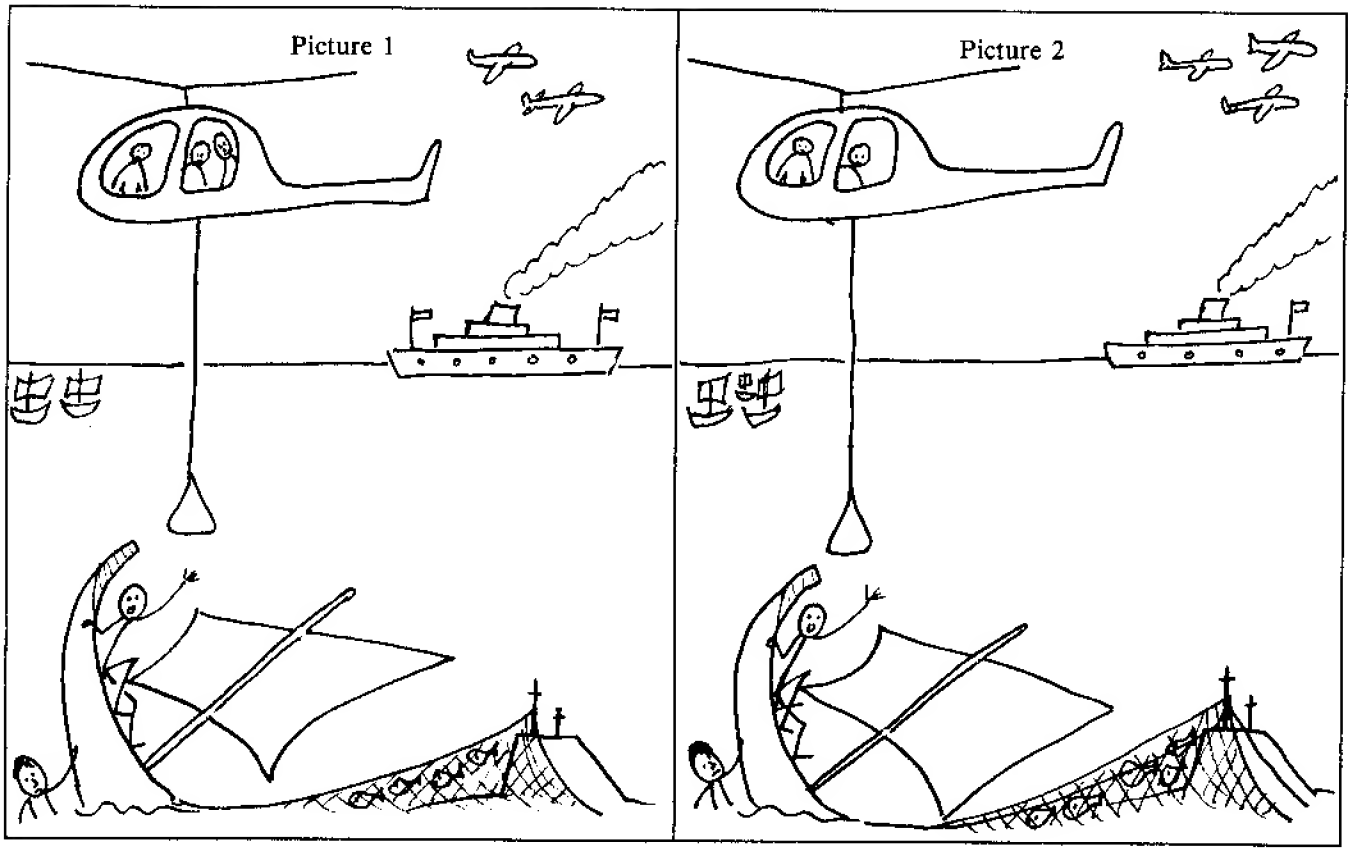
He She It	has just	knocked into the cyclist. crashed into the lorry. walked in front of the cycle. smashed into the car. ridden up the camel's back.

Level 3

Ask your pupils to describe how this accident happened. What did each person say? Was anyone hurt? How much did it cost each person to repair the damaged vehicle? What did the camel think about it?

A sea scene

What are the differences?



Suggested language work

Level 1

Draw only one of the above pictures on the board. Ask the children to write sentences like these :

There	is are	no one two three four five	planes in the sky. submarine. windows in the ship. sailing boats. people in the helicopter. fish in the net.

Level 2

Discuss the differences between the two pictures as you draw them on the board. Ask the children to make sentences according to this pattern :

There are	more fewer	sailing boats windows planes flags people	in the first picture
than in the second picture.			

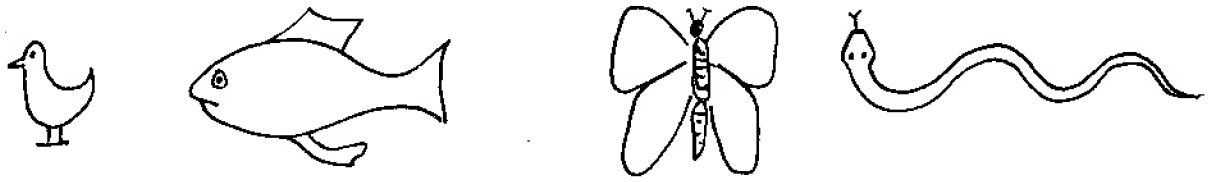
Level 3

Draw one of the above pictures on the board. Write the story of how the fisherman caught a submarine in his net. How did he feel? Did the net damage the submarine? Did the fisherman ever get his boat back? Did the owners of the submarine pay him back for the loss of his boat? Did the fisherman get safely back home?

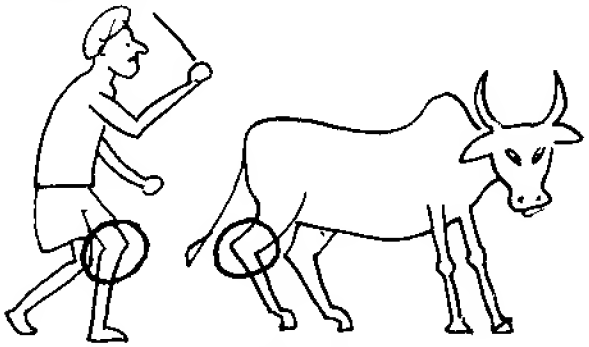
LIVING THINGS

How to draw animals

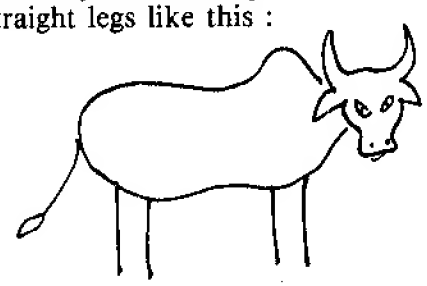
Most people can draw a simple bird, fish, butterfly or snake.



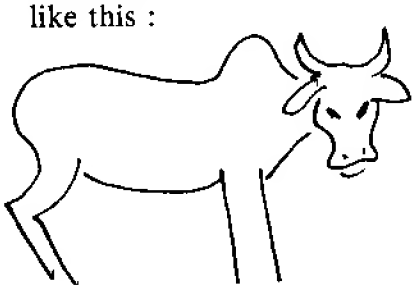
Perhaps this is partly because they look nothing like human beings! But mammals create problems—maybe because some parts of them are like us and some parts are very different. In four-legged mammals, the difficulty is that their back knees seem to point backwards while ours point forwards :



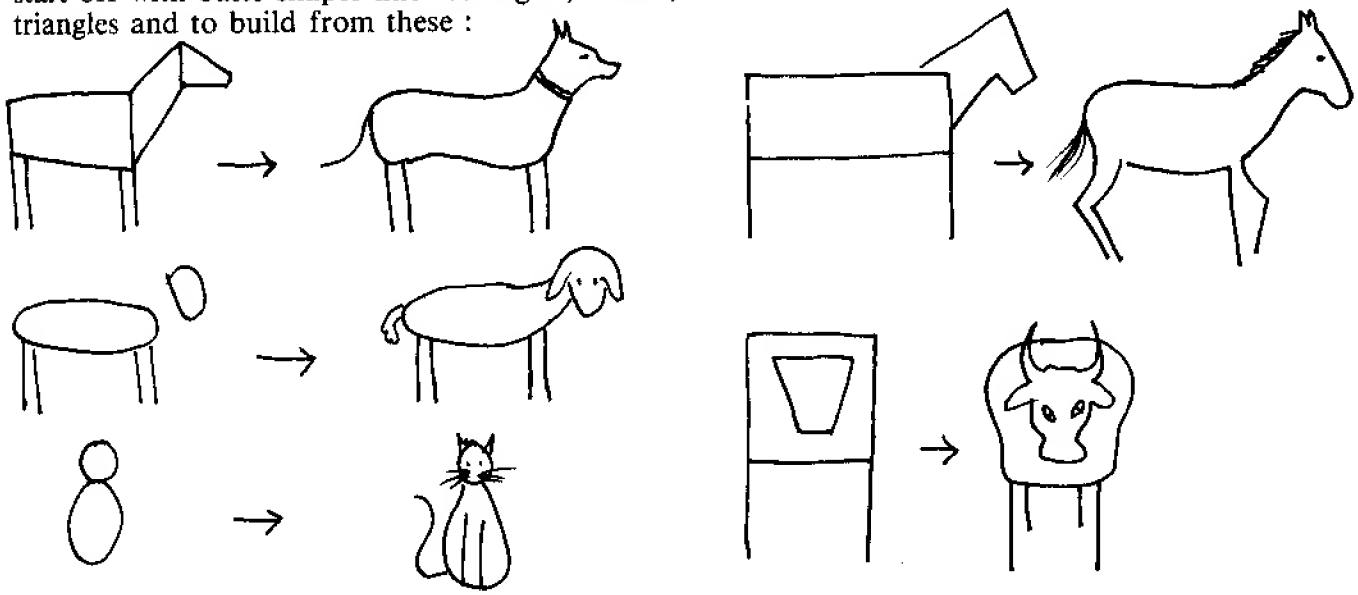
One way round the problem is to draw straight legs like this :



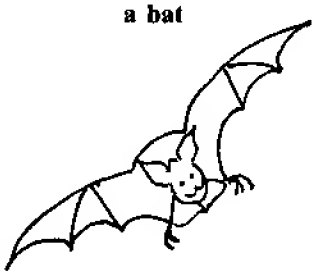
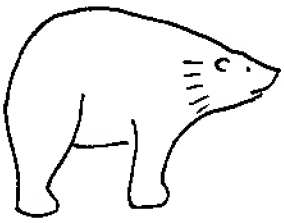
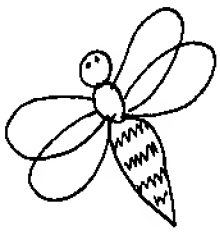
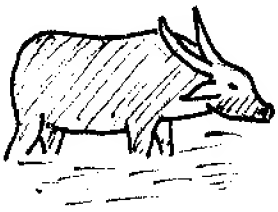
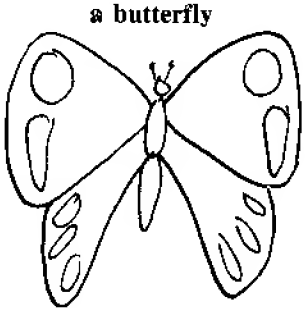
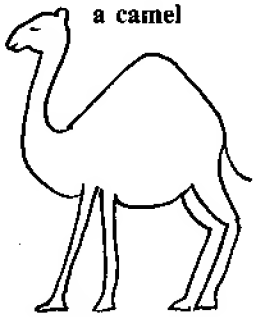
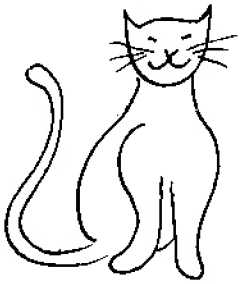
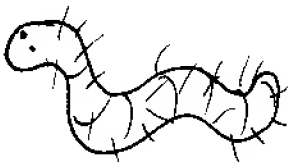
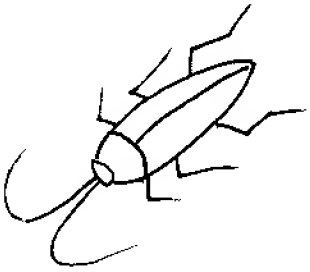
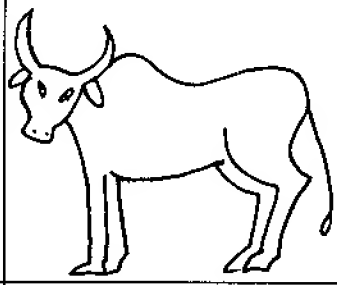
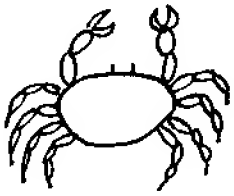
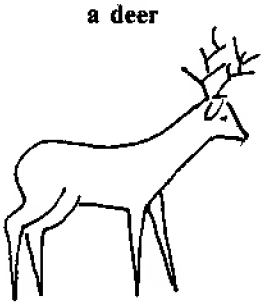
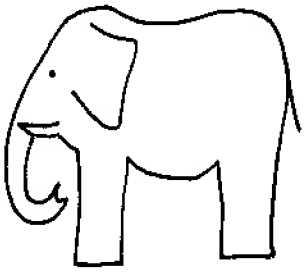
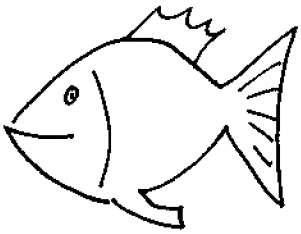
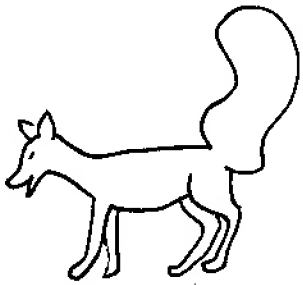
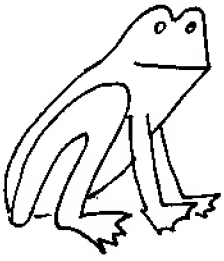
Another solution is to draw bent sticks like this :



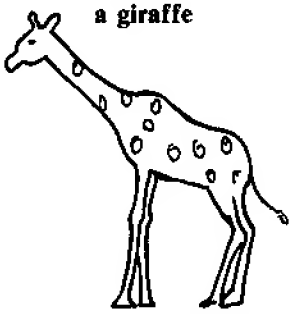
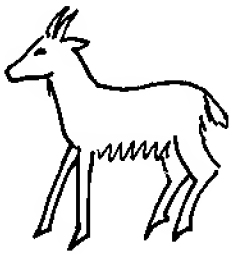
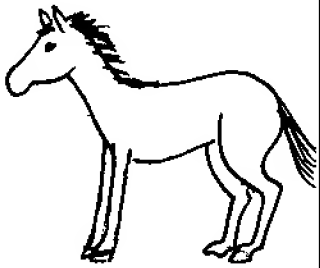
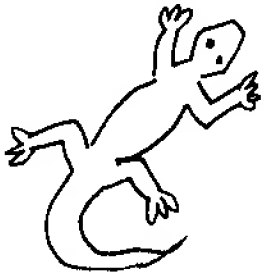
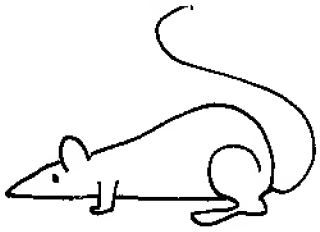
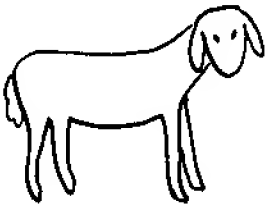
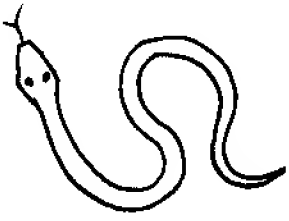
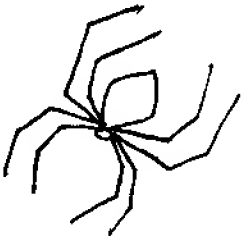
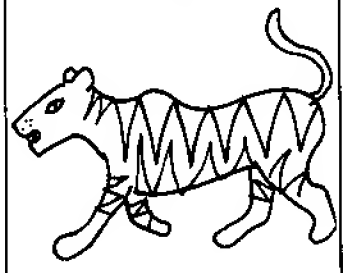
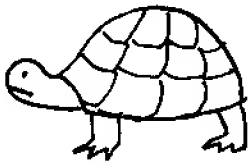
Whatever you do, don't worry about accuracy. It may help to start off with basic shapes like rectangles, circles, ovals and triangles and to build from these :



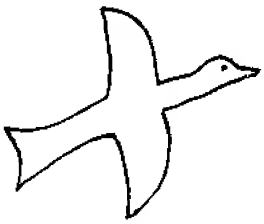
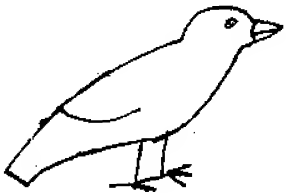
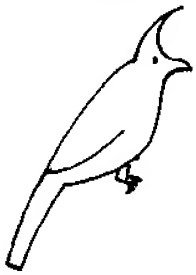
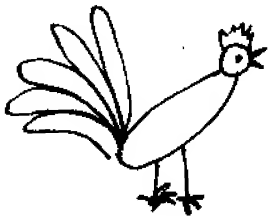
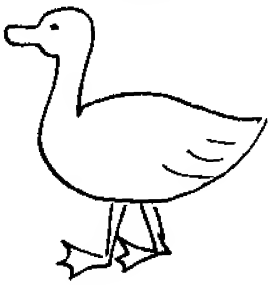
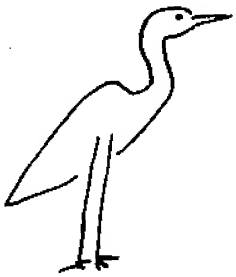
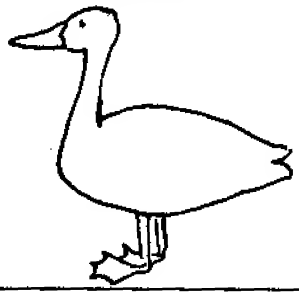
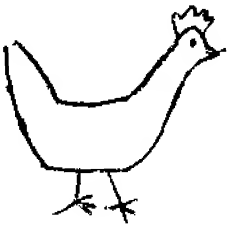
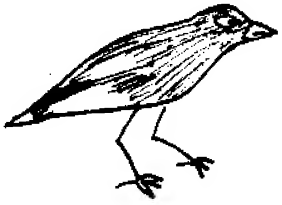
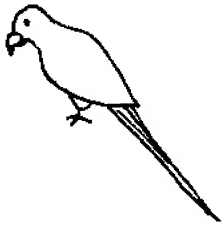
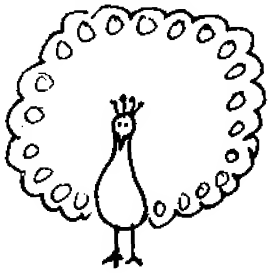
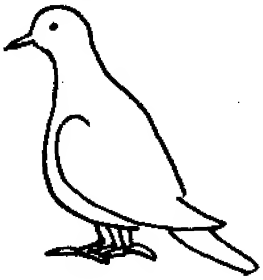
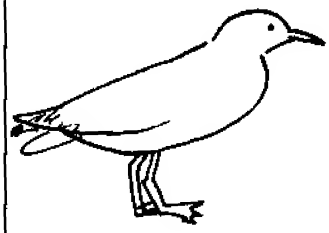
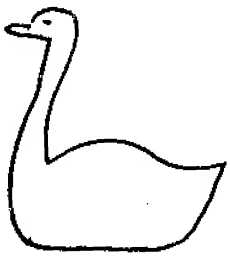
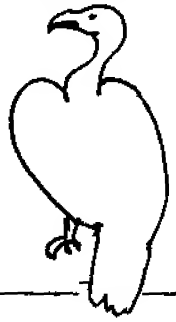
Animals, insects, fish, etc.

a bat 	**a bear** 	**a bee** 	**a beetle** 
a buffalo 	**a butterfly** 	**a camel** 	**a cat** 
a caterpillar 	**a cockroach** 	**a cow/bull** 	**a crab** 
a crocodile 	**a deer** 	**a dog** 	**an elephant** 
a fish 	**a fly** 	**a fox** 	**a frog** 

Animals, insects, fish, (continued)

a giraffe 	a goat 	a horse 	a kangaroo 
a lion 	a lizard 	a monkey 	a mosquito 
a mouse/rat 	a pig 	a rabbit 	a scorpion 
a shark 	a sheep 	a snail 	a snake 
a spider 	a tiger 	a tortoise 	a whale 

Birds

a bird (flying) 	**a bird** (sitting) 	**a bulbul** 	**a cock** 
a crow 	**a duck** 	**an eagle** 	**an egret** 
a goose 	**a hen/chick** 	**a hoopoe** 	**a kingfisher** 
a myna 	**an owl** 	**a parrot/parakeet** 	**a peacock** 
a pigeon 	**a seagull** 	**a swan** 	**a vulture** 

Suggested language work

Level 1

Draw these pictures beside the creatures in the table. Get the children to make questions and answers.

Does a	cat	eat	meat?
	sheep		frogs?
	snake		fish?
	parrot		grass?
	kingfisher		fruit?
Yes, it does./No, it doesn't.			

Level 2

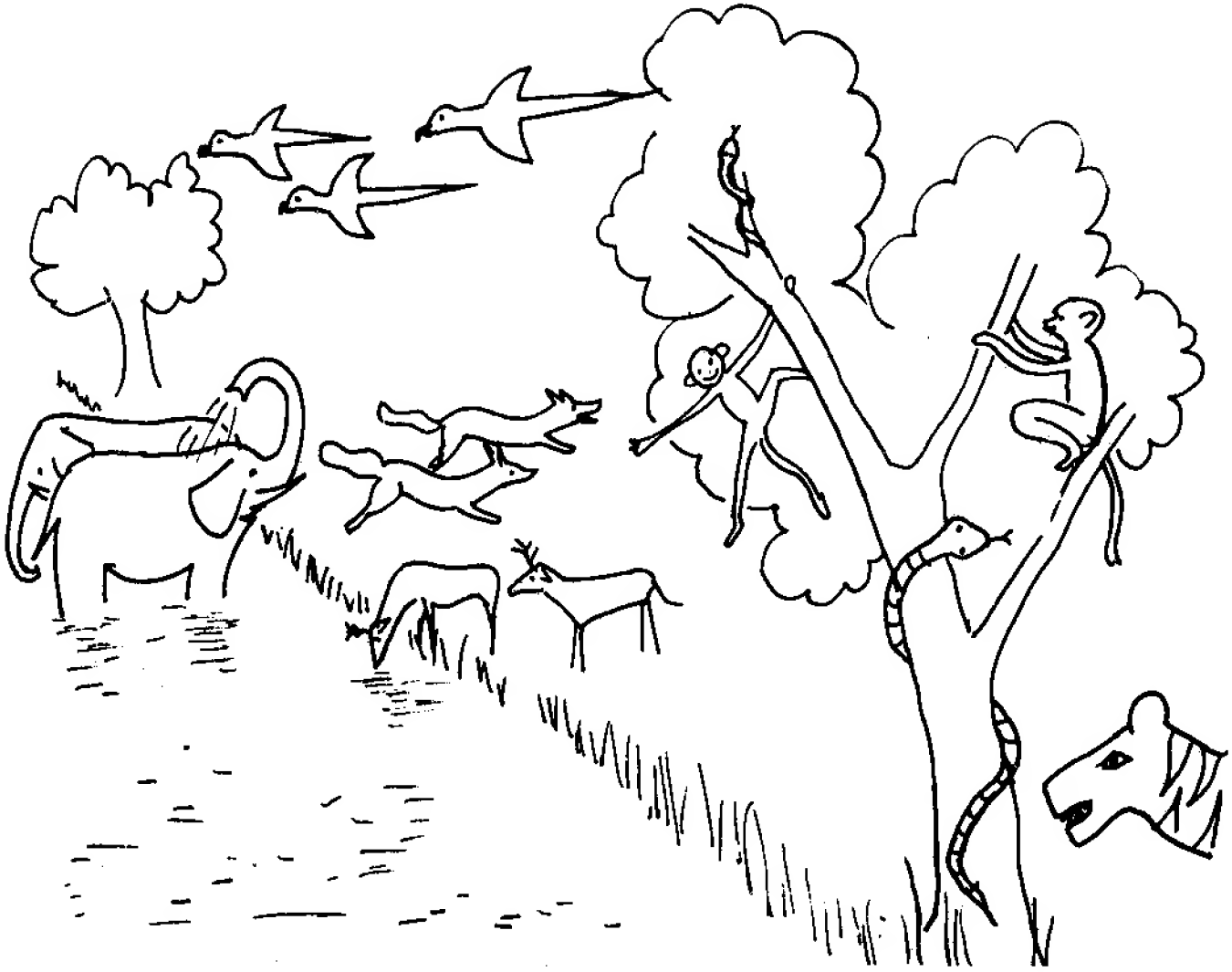
Write these sentence patterns on the board. Choose animals which are comparatively rare (i.e. not dogs, cats and cows). Talk about the different creatures and draw pictures beside each new animal or bird. Get the children to tell you where they saw each creature. Remember that all the children will give different answers.

Have you ever seen	an elephant?	
	a camel?	
	a crab?	
	a deer?	
	a kingfisher?	
	an egret?	
No, I haven't.	at the zoo. in a garden. in a field. at the seaside. at the circus. on the road, etc.	
Yes, I have, I've seen one		

Level 3

Draw two similar creatures (e.g. a parrot and an eagle) on the board. Ask the children to compare the two birds. (e.g. An eagle eats meat, but a parrot eats fruit. An eagle is bigger than a parrot and has sharper claws. Both have curved beaks. A parrot has a longer tail than an eagle. An eagle has bigger eyes than a parrot. An eagle is usually brown, but a parrot is bright green, etc.).

A jungle scene



Suggested language work

Level 1

Draw the above picture on the board. Tell the children that this is how it was all over India thousands of years ago. Use it to teach the simple past tense. Write up a table like this :

Snakes	ran around.
Monkeys	flew about.
Deer	swung from trees.
Wolves	had baths in the river.
Parrots	climbed trees.
Elephants	drank at the river.

Level 2

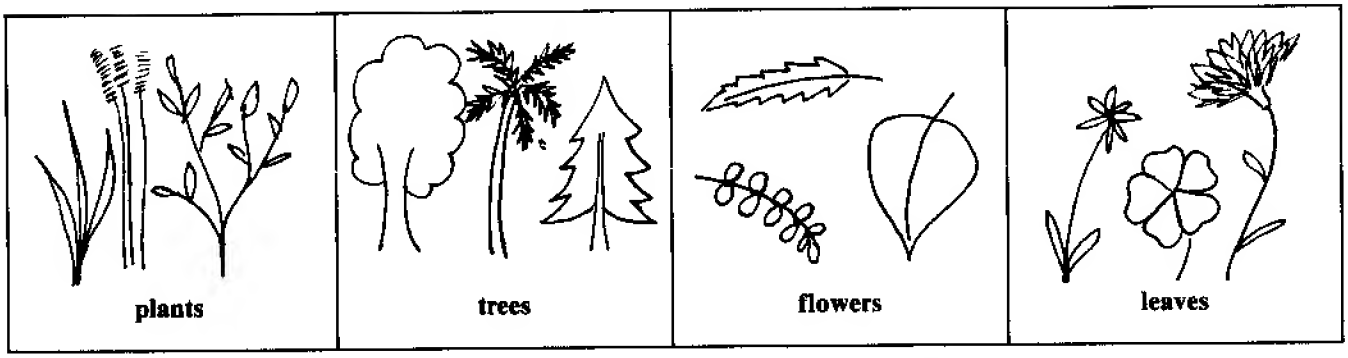
Discuss what the animals *were doing when* the tiger came. Draw the picture and write up a table like this :

When the tiger came,	the snakes the monkeys the deer the wolves the parrots the elephants	were...

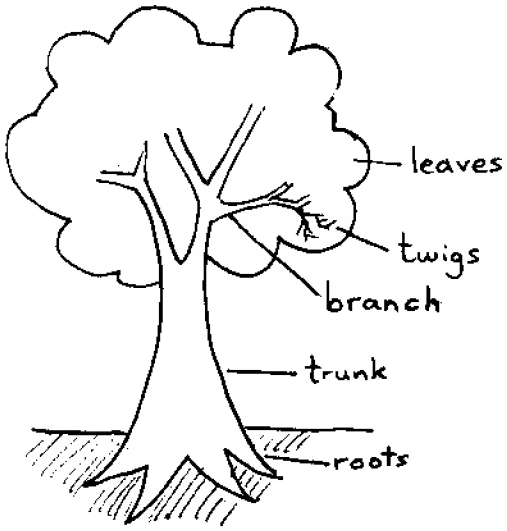
Level 3

Draw the jungle scene on the board. Ask your pupils to write a story about what happened—before the tiger came and what happened next.

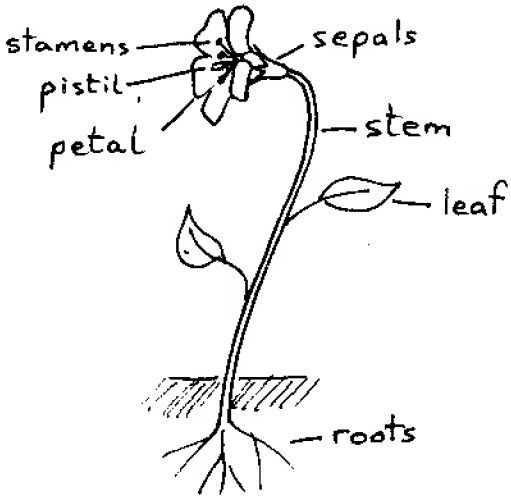
Plants, trees and flowers



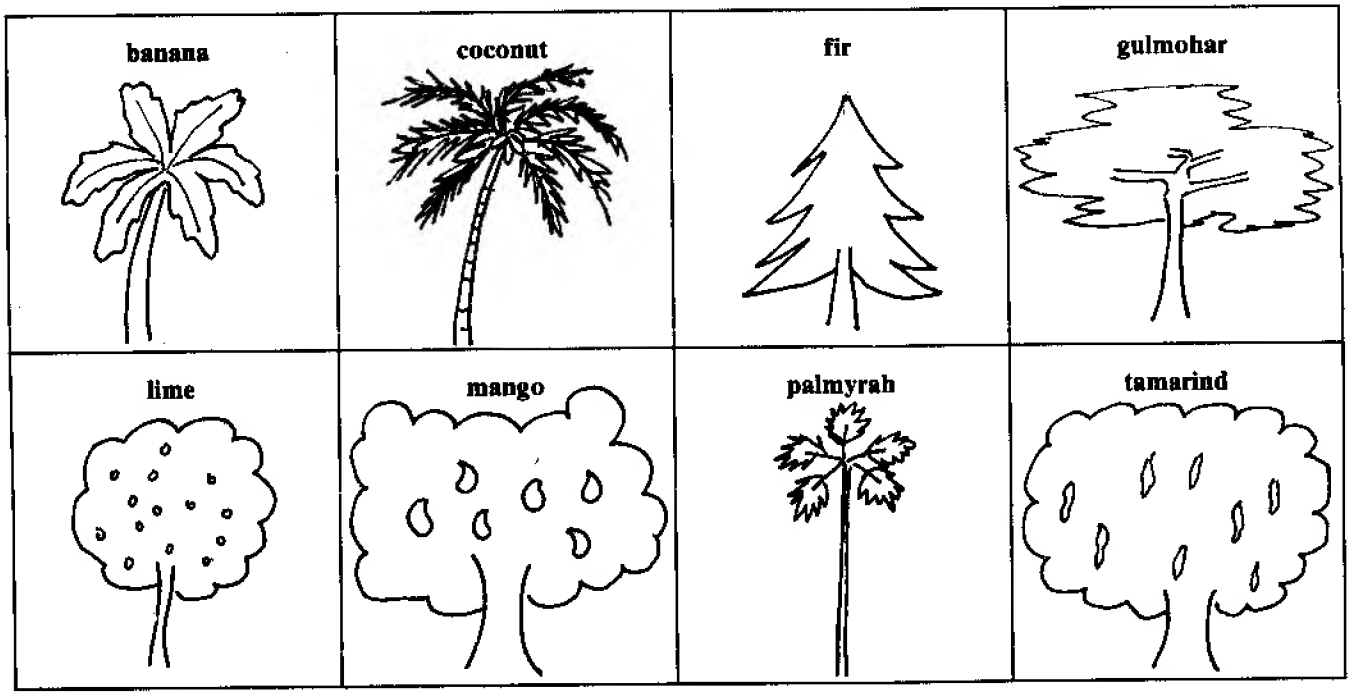
Parts of a tree



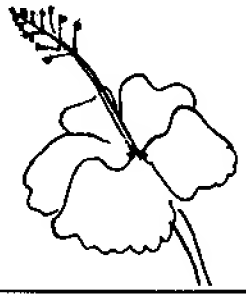
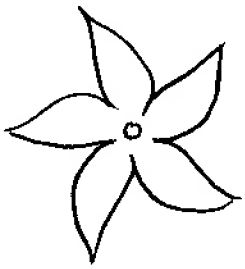
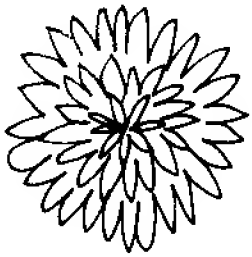
Parts of a flower



Trees



Flowers

hibiscus	jasmine	marigold	rose
			

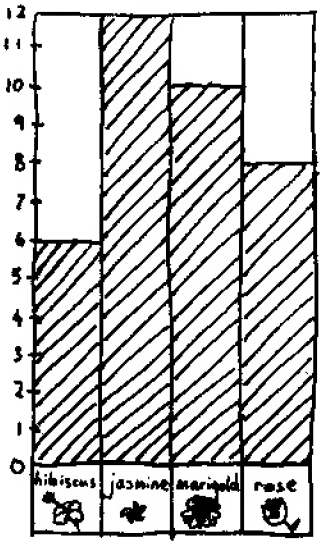
Suggested language work

Level 1

Make a tick chart of the favourite flowers of the children in the class by asking each one in turn. Tick the children in bundles of five like this :

hibiscus	𝍸 |
jasmine	𝍸 𝍸 ||
marigold	𝍸 𝍸
rose	𝍸 |||

When you have finished the tick chart, make a graph on the board like this :



Finally, ask the children to make sentences, following this pattern :

_____ children in our class like	hibiscus jasmine marigold roses	best.

Level 2

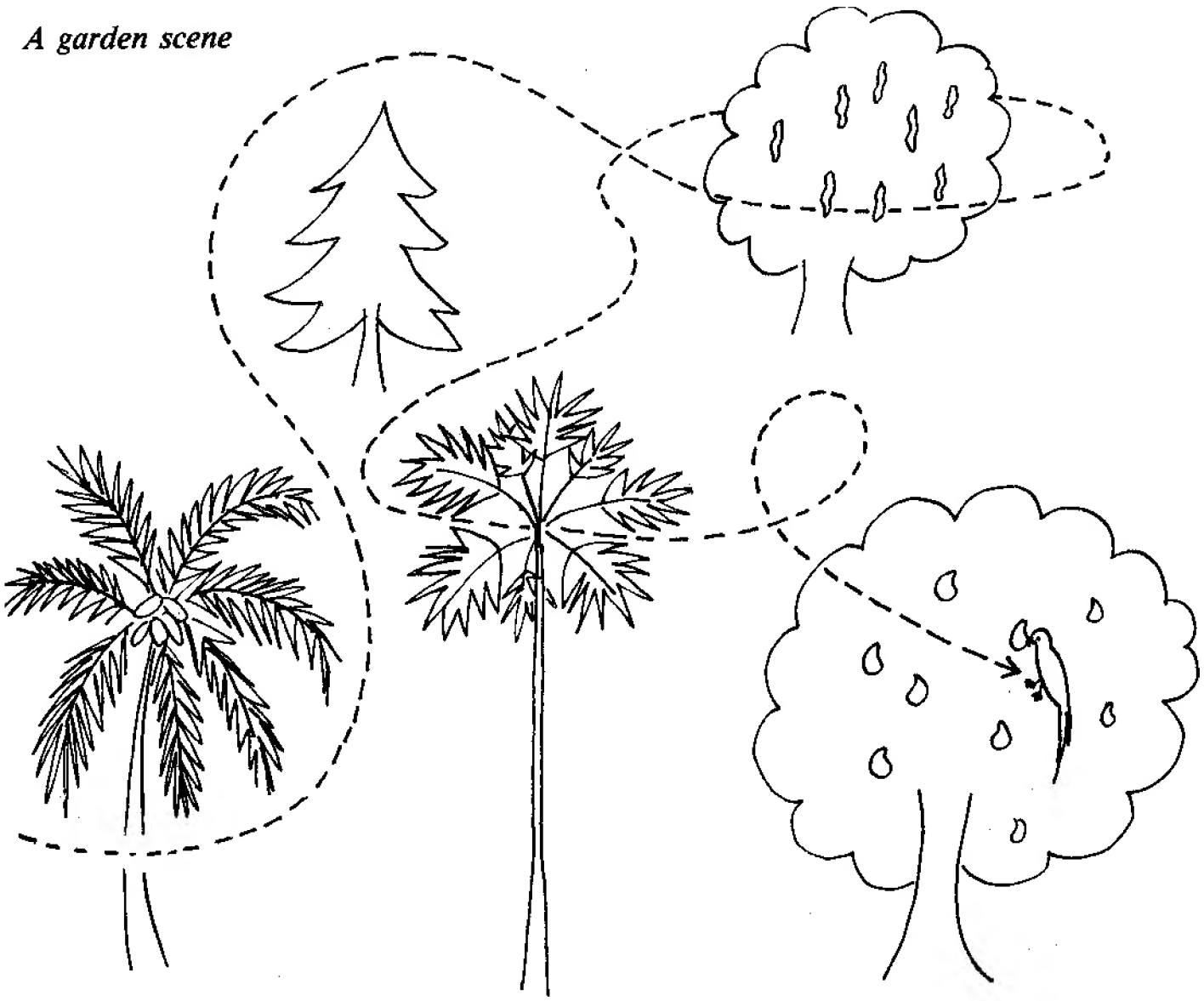
Get the children to match pictures of trees to riddles about them.

It gives us sweet, juicy fruit—we can make hot pickle with the fruit.
It gives us leaves for thatching roofs.
It gives us sour fruit in long, brown pods.
It gives us throw-away plates and bunches of soft fruit.
It gives us cones and wood for building and furniture.
It gives us broom-sticks, chutney and refreshing drinks, etc.

Level 3

Ask the children to make up their own riddles about different types of plants, trees and flowers. Get them to guess each other's riddles.

A garden scene



Suggested language work

Level 1

Draw the picture and the route of the parrot. Discuss where the parrot went and write this table beside the picture.

The parrot flew	under over around through into	the	mango tamarind fir coconut palmyrah	tree.

Level 2

Tell the children to describe the flight of the parrot in one paragraph, using the joining words :

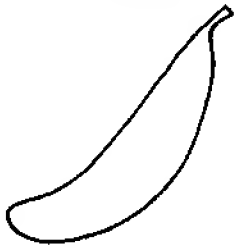
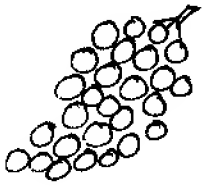
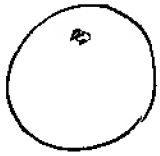
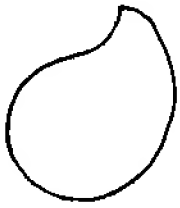
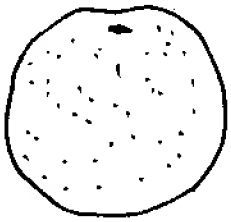
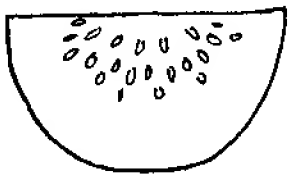
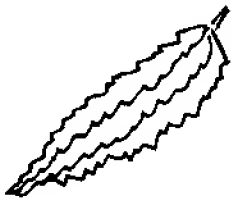
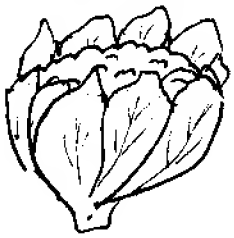
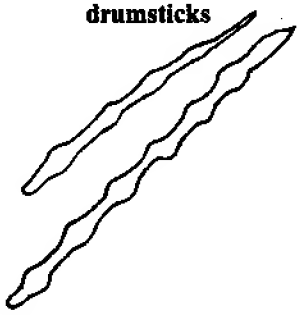
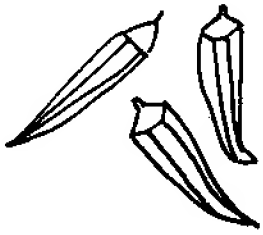
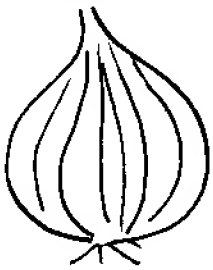
First, Then, After that, Next, Finally

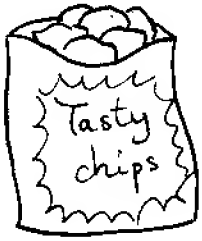
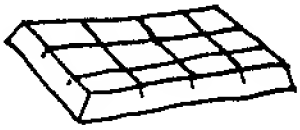
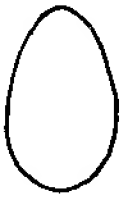
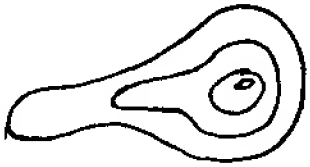
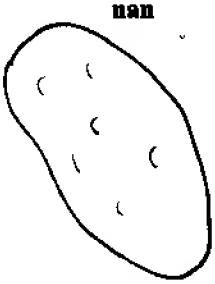
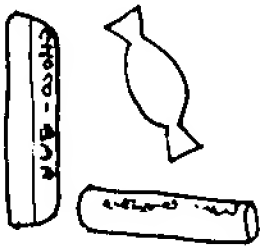
Level 3

Draw these trees on the board. Then ask your pupils to write a poem about one tree, beginning each line with a letter of its name. Do not expect them to use rhyme but encourage them to make comparisons and use interesting adjectives and verbs. Here is an example :

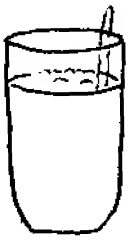
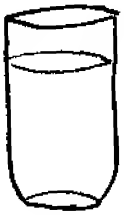
Mangoes in the leaves shine like lamps at Diwali.
A parrot hides in the twisted branches.
Nobody knows who planted this tree.
Ghosts whisper in its leaves at night.
Old tree—you're a mystery to me !

FOOD

FRUIT an apple 	a banana 	a bunch of grapes 	a guava 
a mango 	a lime 	an orange 	a water-melon 
VEGETABLES beans 	a bitter gourd 	a brinjal 	a cabbage 
a carrot 	a cauliflower 	chillies 	drumsticks 
ladies' fingers (or okra) 	an onion 	a potato 	a tomato 

OTHER TYPES OF FOOD	a loaf of **bread**	**a bun**	**a cake**
a biscuit 			
chicken 	**chips** 	**curd** 	**chocolate** 
an egg 	**fish** 	**ice-cream** 	**meat** 
milk 	**nan** 	**noodles** 	**pickle** 
rice 	**rotis** 	**sugar** 	**sweets** 

Food and drink

DRINKS coffee/tea	a cool drink	milk/lassi	water
			

Suggested language work

Level 1

Write this table with the pictures alongside on the board. Ask the children to make two sentences for each type of food.

	Curd		
	A chilly		sweet.
	A cake	tastes	sour.
	A chip	doesn't taste	salty.
	A lime		spicy.
	etc.		

Make it clear that there is no 's' after taste when it follows 'doesn't'.

Level 2

Discuss the difference between countables and uncountables. Write this table — with accompanying pictures — on the board. Ask the children to make questions and answers about the pictures.

	milk in this glass?	
Is there much	grapes on the plate?	
Are there many	bread in the packet?	
	rice in the sack?	
	beans on the plant?	
	etc.	

Yes,	there	is	a lot of _____.
No,		are	only a little / few _____.

Level 3

Draw the ingredients for a recipe on the board. Ask your pupils to make the recipe if possible and then write out the recipe. You could for example, draw the ingredients for a pulao and get your pupils to describe how to make it.

Dinner time

Suggested language work

Level 1

Talk about the picture on the board. Do not write the speech bubbles on the picture, but make the different expressions clear. Get the children to write sentences following the patterns in the table.

Mother Father Grandmother The big girl The little girl The big boy	is	feeding the baby. enjoying her dinner. not enjoying her dinner. giving beans to her daughter. playing with his food. giving rice to his son.

Level 2

Practise the use of speech marks after you have talked about the picture. Ask the children to write about dinner time, using speech marks. Make sure they begin a new paragraph each time a new person starts talking.

One evening, the Gupta family sat down to eat dinner.

'Would you like some beans?' asked Mrs Gupta.

'No, thank you,' replied her daughter...

Level 3

Draw the picture *without* the speech bubbles. Ask your pupils to write about dinner time, using their own ideas for what each person says.

B: Subject based work

LANGUAGE TEACHING

Language is best learned within the context of an interesting topic. That is why the first part of this book is devoted to topic work. However, in this section some effective *types* of language exercise are suggested. These can be useful techniques for mother tongue teaching and for second language work. The difference between the two is that free writing should be encouraged much sooner in the mother tongue. Children learning English or another second language will need structural guidance for a longer period.

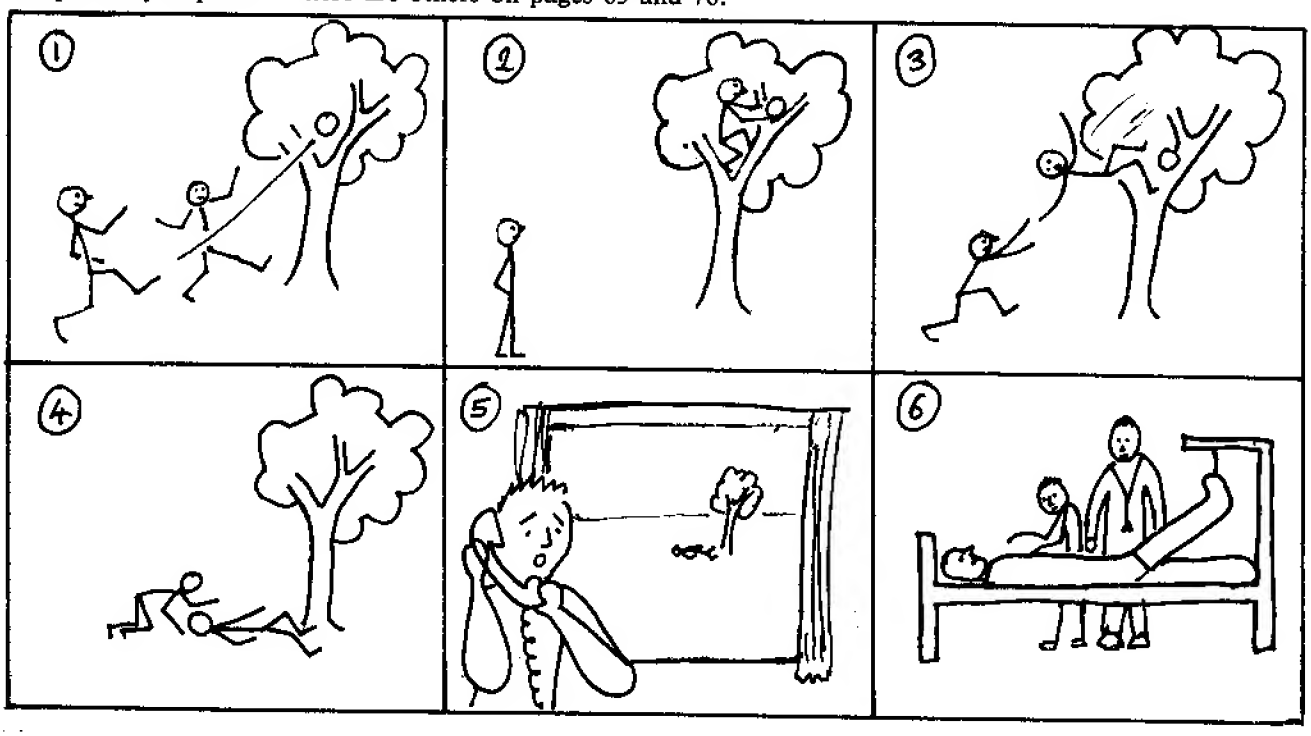
1. *Pre-literacy*

Before children learn to read or write, they must be able to understand and talk—a few simple sentences at least. We all know that children understand best when they can see what they are talking about. But there is not much to talk about within the four walls of a classroom.

This is where the blackboard is so useful. It could be called a window onto the world. Through that window, you can see almost anything you care to imagine—if you can draw! The early years of language learning need lots of visual stimulation, whether the language is English or the mother tongue. Here are some suggestions :

a. **Talk-about pictures**
Draw simple pictures of scenes such as those on pages 29, 32, 39, 46 or 53. Introduce new vocabulary orally. Don't attempt to do any writing. Talking is enough at this stage.

b. **Picture sequences**
Stories, however short, are an essential part of early language acquisition. If you draw pictures on the board, the stories you tell will be additionally meaningful and exciting. The children will also learn to move their eyes from top-left to bottom-right—useful pre-reading training. Here is a sample story sequence. There are others on pages 65 and 76.



Pre-literacy (continued)

c. **Guess what it is**
Draw a simple picture on the board, one line at a time. The children try to guess what you are drawing *before* you finish the picture. This is a useful way of teaching basic vocabulary. It also teaches very young children to 'read' pictures. For example :

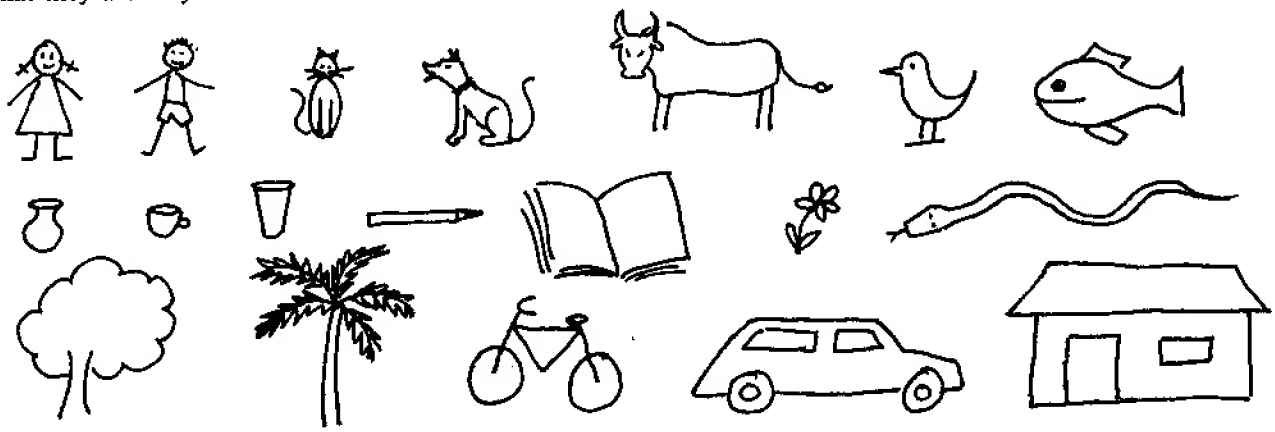
'Is it a face?' 'No, it isn't.'

'A snake?' 'No.'

'A cat?' 'Yes—well done!'

Always finish the drawing after it has been guessed so that *all* the children in the class can see what it is. The pictures you draw can be copied onto slates or paper. Drawing is good preparation for writing. It teaches finger control and the idea that a symbol can have a constant meaning.

d. **Picture Bingo**
This is a good game to play after you have tried the previous one several times. Draw about twenty simple pictures on the board like this. Discuss what they are as you draw.



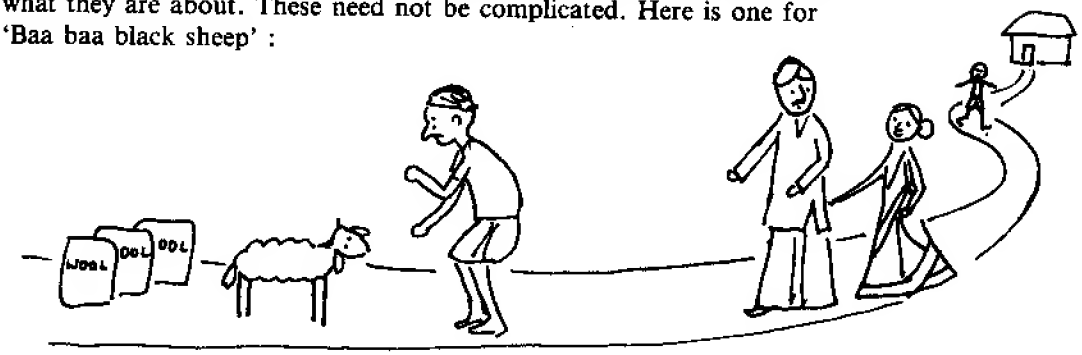
1. Tell the children to choose any *six* they like and copy them onto paper or their slates. Make sure that they do not choose the same pictures as each other. 2. Keep a stock of counters in the classroom (e.g. seeds or matchsticks) which you can use whenever you play Bingo. Give each child six counters. 3. Tell them to cover a picture if you call its name. So, for example, if you call out, 'book', any child who has drawn a book should cover it. Keep a record of the words you have called. 4. The first child to cover all six pictures should shout, 'Bingo!' 5. Check that you have called all six. If the child has covered a picture you have *not* called, that child is out. If you have called all six pictures, that child has won. 6. Keep the children's Bingo drawings so that you can play another day. They will get better at playing the more often they play.

This game reinforces new vocabulary.

e. Remember the pictures (Kim's Game)
Draw ten or twelve simple pictures on the board. Talk about each one for some time. Then cover them with a large cloth, turn the board around or rub them out if you cannot hide them. Then tell the children to draw the same pictures in their books or on their slates. If possible, uncover the board or turn it round so that they can see what they missed.

This game develops new vocabulary and concentration.

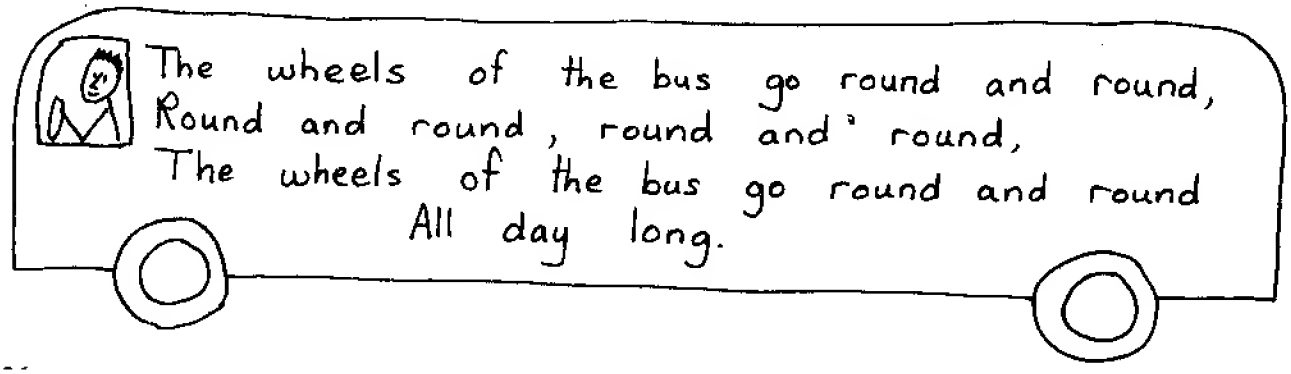
f. Illustrations of rhymes and songs
Simple drawings of nursery rhymes and songs help children to understand what they are about. These need not be complicated. Here is one for 'Baa baa black sheep' :



One of the wonderful things about the blackboard is that you can add to and take away from a picture. So, for example, if you are teaching 'One man went to mow', you can add a man with each verse. If you are teaching 'Ten green bottles' you can rub a bottle out with each verse :

'And if one green bottle
Should accidentally fall,
There'd be seven green bottles
Standing on the wall.'

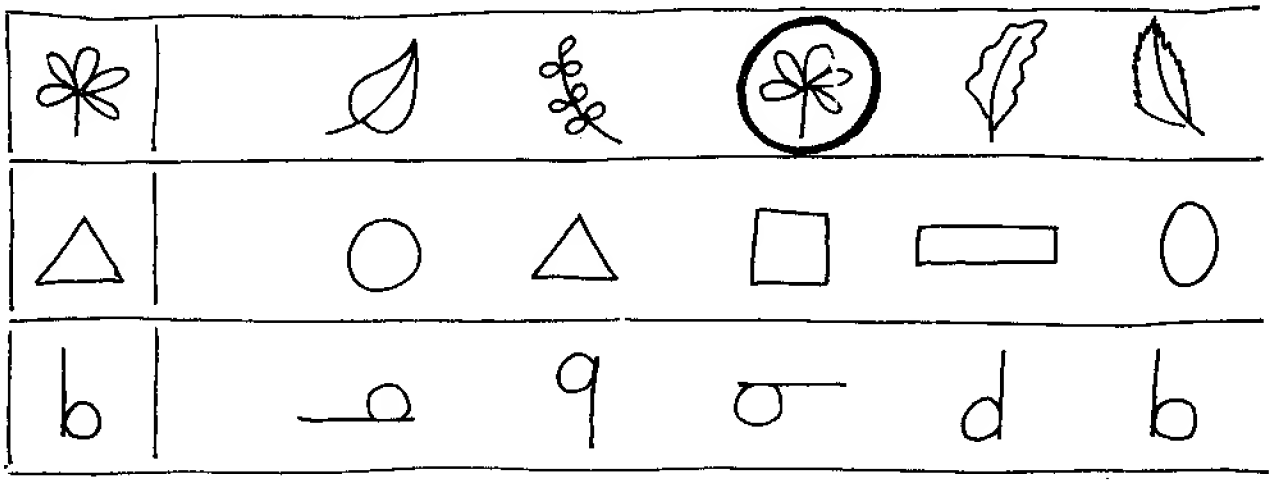
You may wish to draw a picture around the words of a song on chart paper. Then you can put it on the wall and leave it there for a time. The disadvantage of the blackboard is that you cannot keep the pictures you draw there—even if they are masterpieces! Here is a very simple illustration for 'The wheels of the bus'. (Write the words first, then draw the bus around them.)



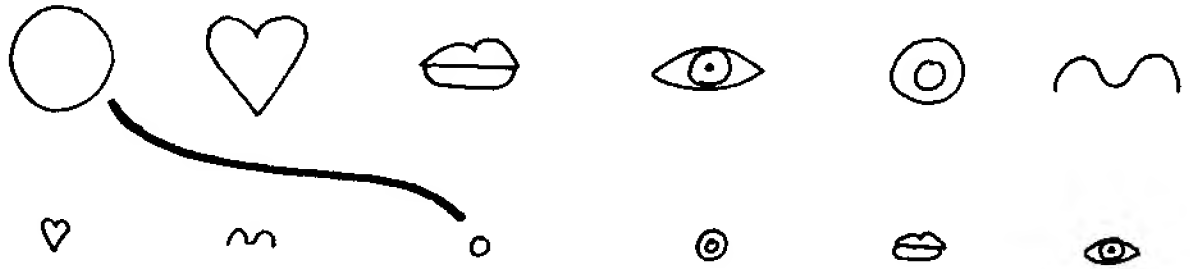
Pre-literacy (continued)

g. Picture and shape matching
Draw simple pictures and shapes on the board. Ask the children to match those that are the same. This can be useful pre-reading practice for reversed letters like **p, b, q** and **d.**

Ex.1 Circle the picture which matches the first.



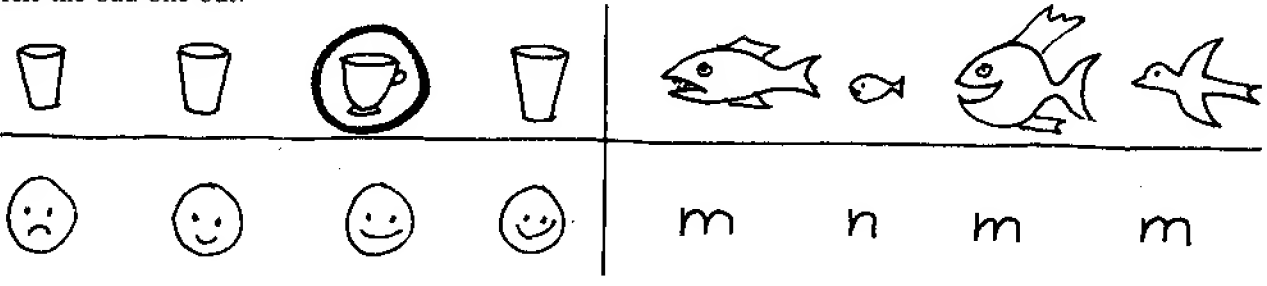
Ex.2 Join the matching shapes with a line.



In Ex.1, the children are led from representative pictures to more abstract shapes. In Ex.2, they learn to associate shapes of the same pattern, even if they are of different sizes.

h. Odd-one-out exercises
Like the matching exercises above, odd-one-out problems teach children to distinguish between different shapes. They also teach children to classify things into sets, which is the basis of reasoning.

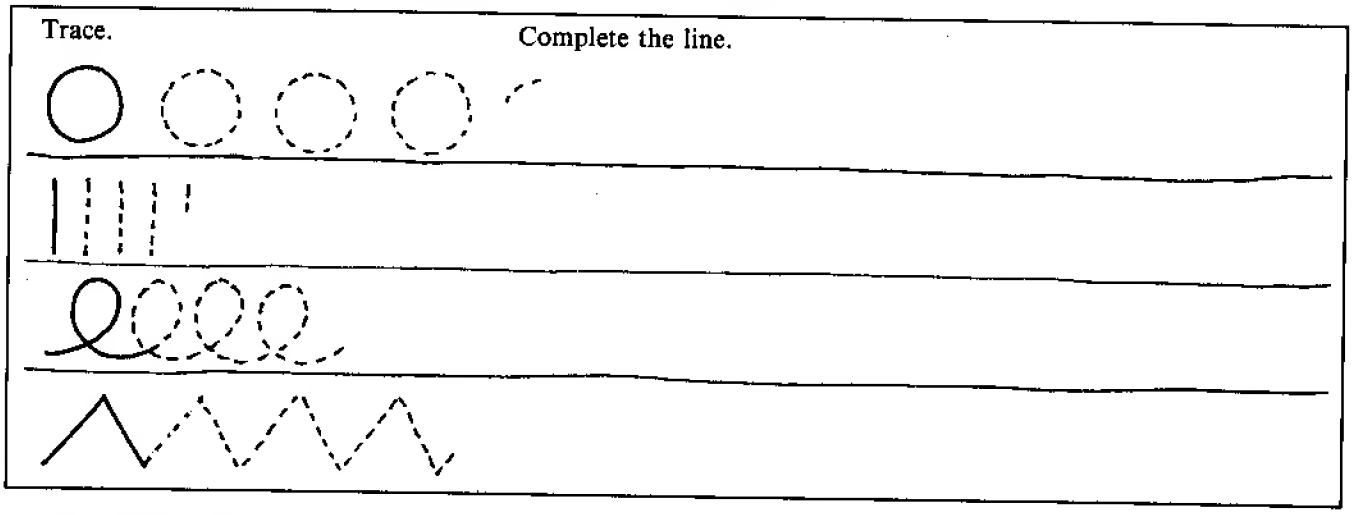
Circle the odd-one out.



Pre-literacy (continued)

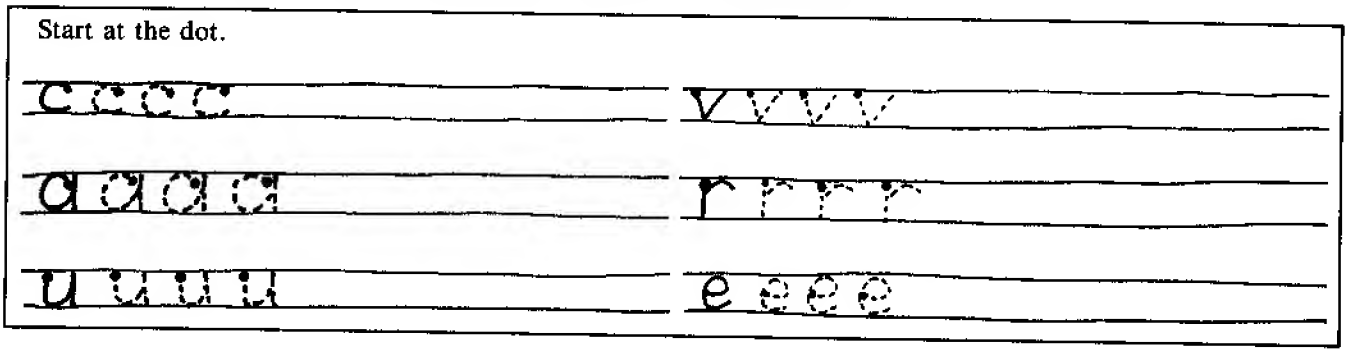
i. **Pattern making**

This prepares children for writing. When they are able to see that shapes follow a regular pattern, they are ready to recognise the difference between letters. The patterns below can first be traced and completed on the board. Then they can be copied onto slates or exercise books.

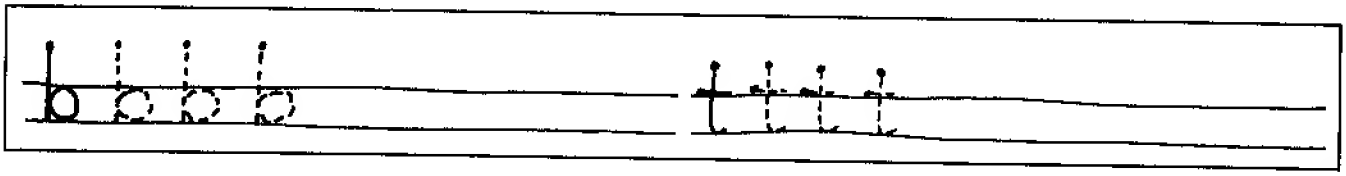


j. **Early writing practice**

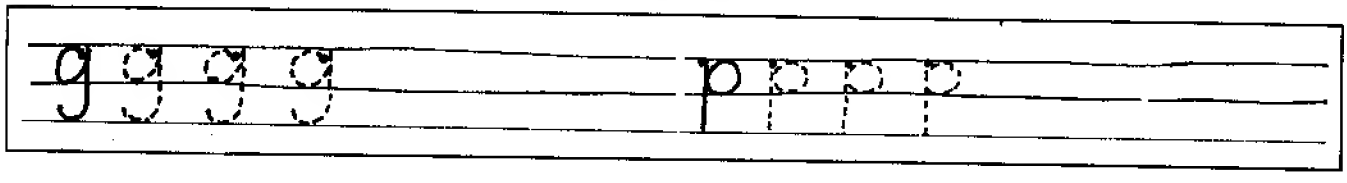
When the children have had plenty of practice in pattern-making, they can start writing letters. Treat these as patterns and do not be too particular about the letter names. If you wish, call them by the letter sounds (see page 59 for the teaching of phonics). Teach the children to start letters from the top and show them the direction the pencil should follow. Start with letters which fit between double-ruled lines like these :



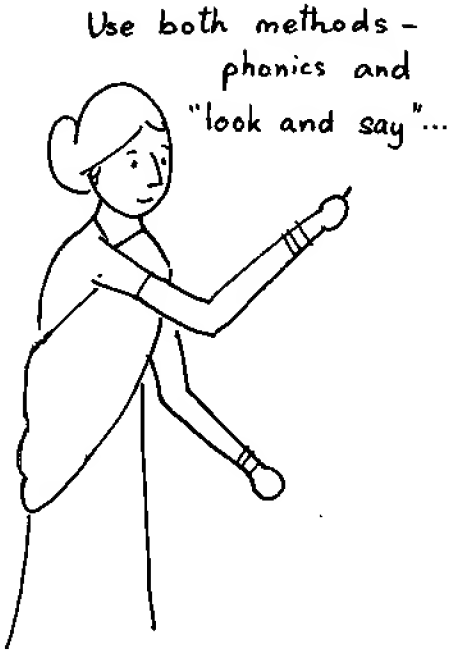
After the children have learned to keep within the double lines, teach letters which go above like this :



Finally, teach letters which go below the double line, like this :



2. *Early literacy*



Children should not be taught reading until they have spent plenty of time talking and listening in English. There is no point in their reading what they cannot understand. They also need to do plenty of pre-literacy activities so that writing is also meaningful. The early stages of reading and writing should be built on meaningful talk and activity.

It is generally agreed nowadays that children learn to read most easily when they are taught with a combination of the phonic and 'look-and-say' methods. The phonic method teaches the regular sounds of letters (for example 'a' as in 'bat'). The 'look-and-say' method teaches children to recognise a word by its shape—as a whole. This method is useful for words with irregular spellings (like 'friend' and 'enough'). Most children's names are best taught as sight words too.

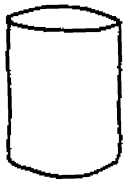
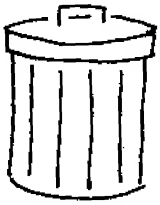
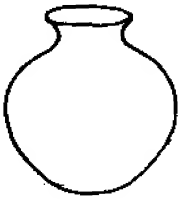
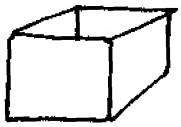
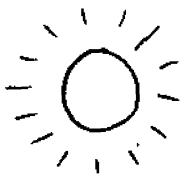
The majority of blackboard activities suggested below concentrate on teaching the regular phonic sounds of English. Since the letter names (A, B, C etc.) do not usually correspond to the *sounds* the letters make, it is recommended that letter sounds (ah, bah, kah etc.) should be used at this stage. Here is a guide to the regular phonic sounds of the English alphabet.

a as in bat	b as in bin	c as in cat	d as in dog
e as in egg	f as in fat	g as in girl	h as in hat
i as in pin	j as in jump	k as in kite	l as in lamp
m as in man	n as in nut	o as in dog	p as in pot
q as in queen	r as in rat	s as in sun	t as in tin
u as in under	v as in van	w as in woman	x as in box
y as in yellow	z as in zebra		

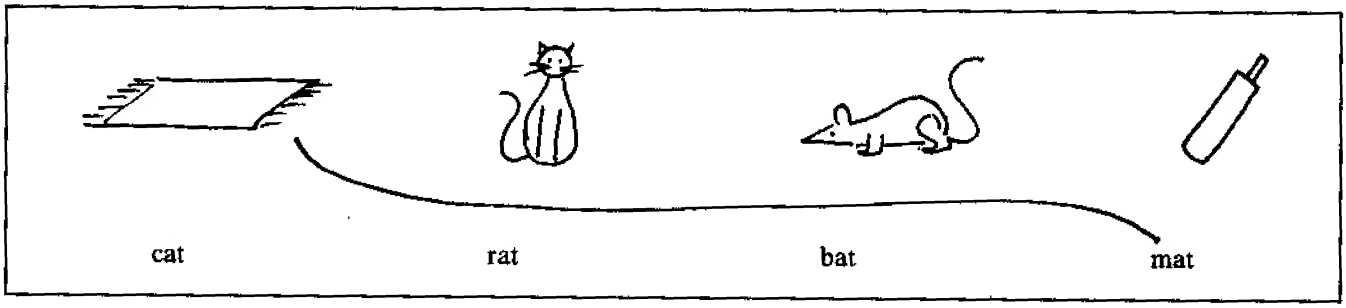
a. Picture-word matching

Matching words to pictures is a good way of teaching that written words have meaning. Picture-word matching activities build an understanding of the regular letter sounds. These are probably the best words to start with.

bat	**cat**	**mat**	**rat**
hen	**pen**	**net**	**egg**

i	tin 	bin 	pin 	pig 
o	pot 	dot	dog 	box 
u	hut 	sun 	jug 	mug 

Take one vowel sound a week and draw the pictures with the words in a mixed order below. Get the children to match the words and pictures on the board. Then they can copy the words and correctly match the pictures on their slates or in their exercise books.



The matching process ensures that the children have to think about the meaning of a word before they write it. Try to keep to nouns for this activity. Though there are simple verbs and adjectives, they can be confusing. You could *not*, for example, say

This is a sit  or This is a fat 

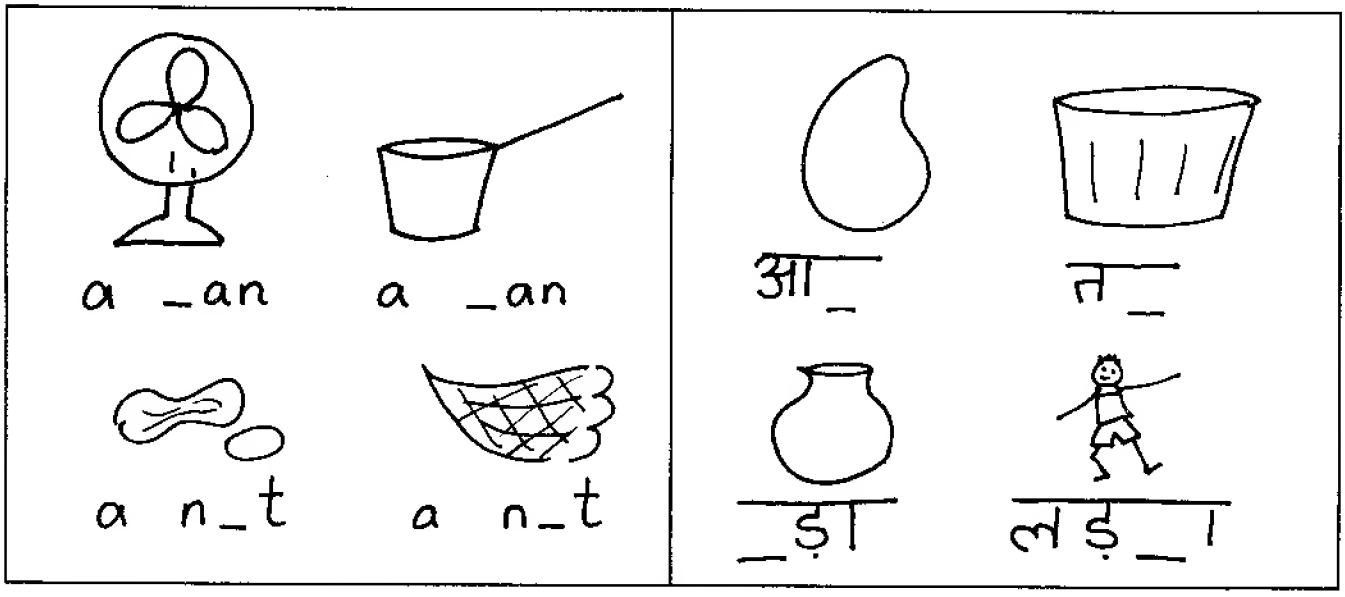
There are plenty of simple nouns which can be used. Be sure to keep to words with which the children are familiar. It is better to use a four-letter word like *ring* than to hunt around for *i* words and use *fig* which your children may never have seen.

Early literacy (continued)

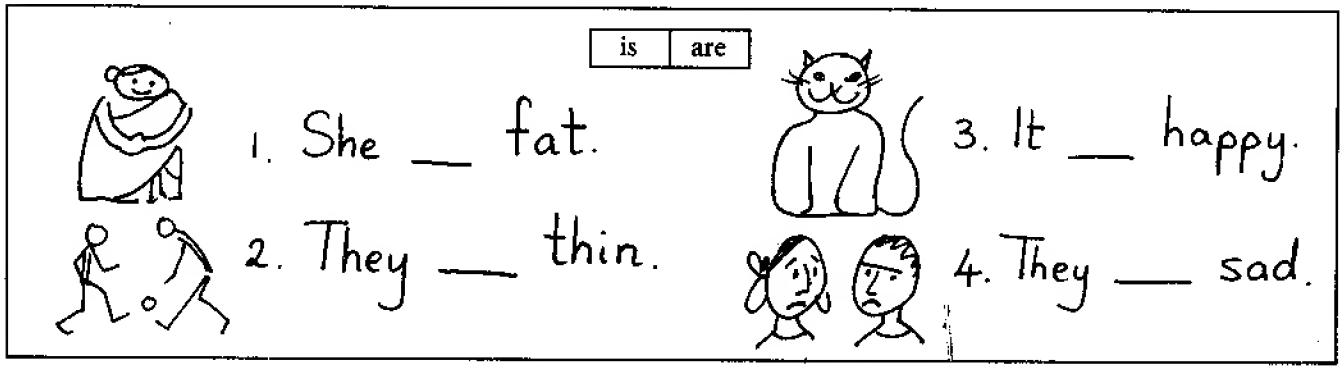
b. **Odd-one-out exercises**
These are similar to those suggested as pre-literacy exercises, but focus on the differences between similar words. The same technique can be used for any early literacy work.

sun (gun) sun sun	बड़ा बढ़ा बढ़ा बढ़ा
cap cap cap cat	ಕಂಬ ಕಂಬ ಅಂಬ ಕಂಬ

c. **Filling in the missing letter**
Draw a number of simple pictures on the board. Write their names below, but miss out one letter. The children copy the pictures and complete the words below. This exercise can of course be used in teaching *any* language.



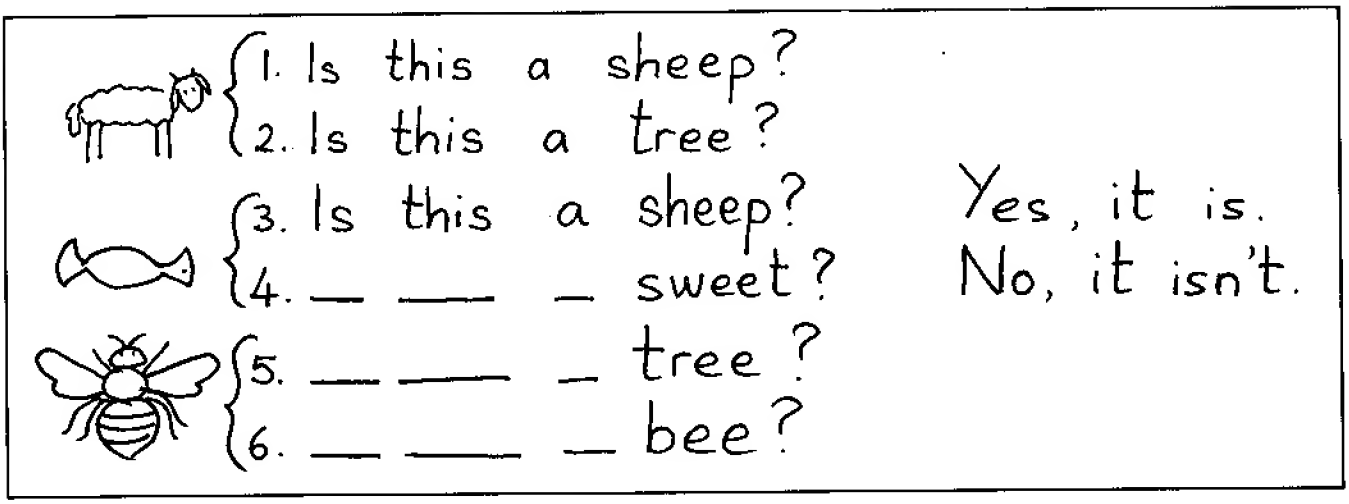
d. **Filling in the missing word**
This can be done to establish simple differences—like that between singular and plural. Always write the missing words on the board at this stage. After oral practice, the children can write the sentences and draw the pictures.



Early literacy (continued)

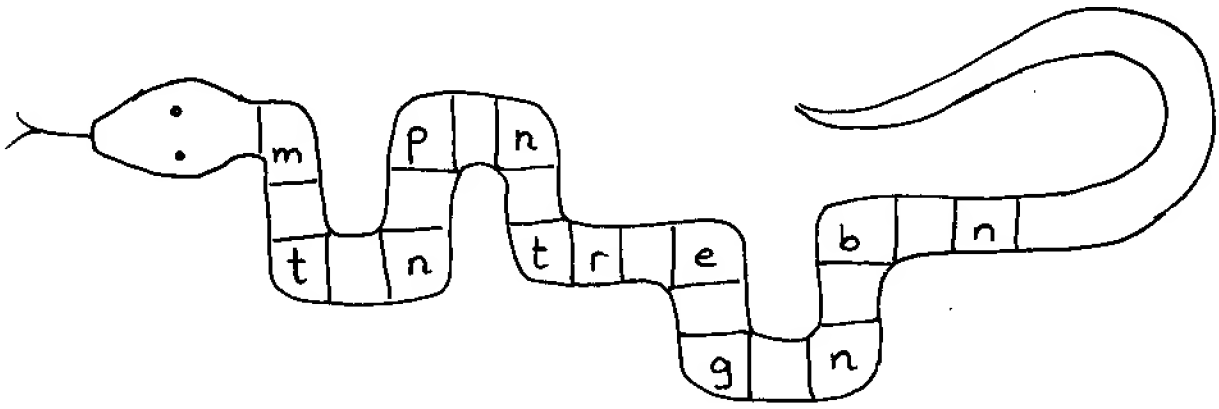
e. Simple questions

New phonic patterns can be reinforced with simple questions which do not demand complicated answers. Here is an example of a reinforcement exercise for the phonic pattern *ee* :



f. Puzzles

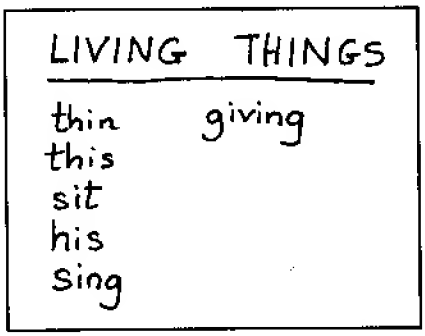
Children enjoy puzzles, so you can do some useful consolidation with them. A word snake on the board is fun. Make up your own to practise the words you have been teaching. For example :



The children complete the words, first on the board, then on their slates or in their books. Accept any words that make sense. A TIP : Write the words first, then draw the snake around them.

g. Games

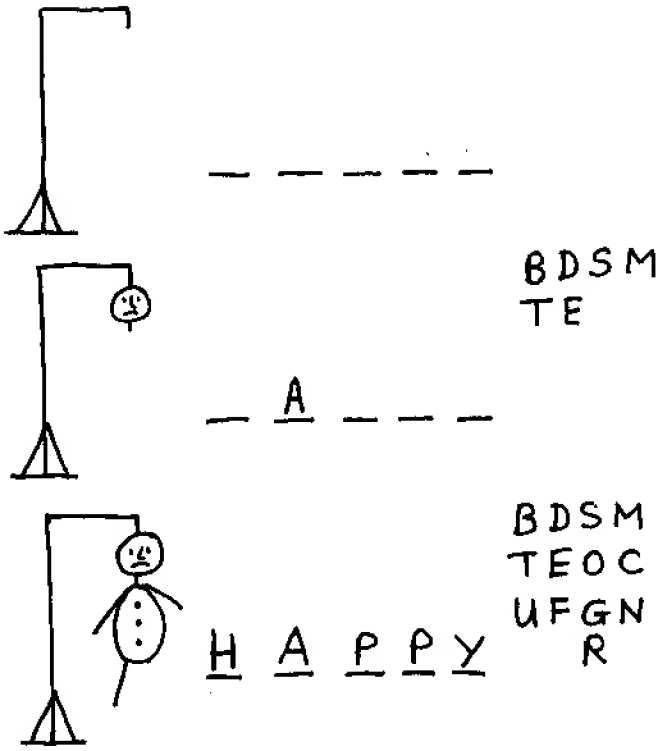
There are lots of games that can be played with the help of the blackboard. It is obviously always a useful way of recording the score of team games. It can also be used for spelling games like 'What's in a word?' Write some words associated with your topic on the board. Ask the children to make as many smaller words as they can using the letters in the word. If a letter occurs only once, it can only be used once. For example, here, you can make *sit*, but not *sitting* because there is only one 't'. The child with most meaningful words after ten minutes is the winner.

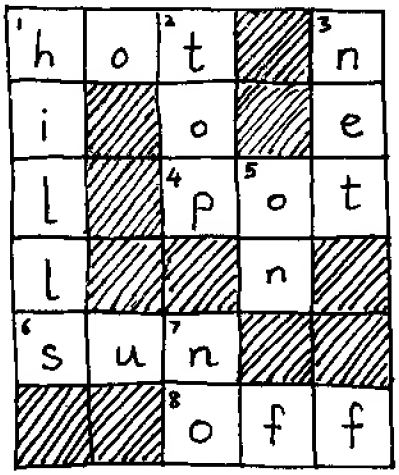


Early literacy (continued)

Another useful board game is 'Hangman'.

1. Think of a word the children know.
2. Draw a space for each letter on the board and gallows for hanging a man, like this :
3. Ask different children in the class to guess the letters in the words. If the letter guessed is not in your word, write it up and add one feature of the hanged man. Here, the head was drawn for the B, an eye for D, another eye for S, the nose for M and so on.
4. If a letter guessed occurs twice in a word, fill them both in.
5. There are fourteen parts to the man, so the class can have thirteen wrong guesses. If you complete the hanged man, you have won. This won't often happen! The child who first guesses your word has the next turn to think of a word.





h. **Simple crosswords**

Crosswords always motivate children to learn. Don't expect them to copy the crossword as it is difficult to get the squares right, but it can provide an interesting class lesson. If you wish, the clues can be completed and copied. It will take a few minutes for you to work out the crossword and write up on the board, so have it prepared and written up before the lesson. Here is an example, but try to make up your own to reinforce new vocabulary. Fit the words together on a grid first, then write the clues.

Clues Across

1. This pot is _ _ _.
4. She is carrying a _ _ _.
6. The _ _ _ is shining.
8. He is turning the light _ _ _.

Down

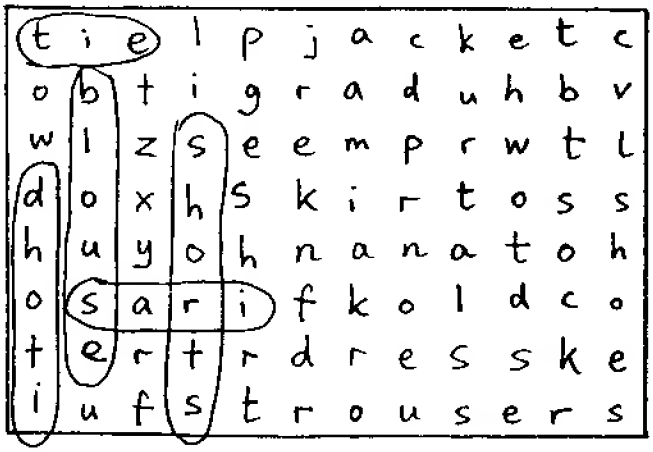
2. The _ _ _ is spinning.
3. There is a _ _ _ on the bed.
5. The lid is _ _ the bin.
7. There are _ _ flowers in the jug.

Early literacy (continued)

i. Word searches

These are less difficult then crosswords—and less time-consuming for you to prepare! They are useful as a means of reinforcing vocabulary about a topic. Write the words in a grid first. Try to include as many as you can which relate to your topic. They can go down or sideways. Then fill up the spaces left with any letters you like. This should be done before the lesson. The children must find as many words as they can and write them in their books or on their slates.

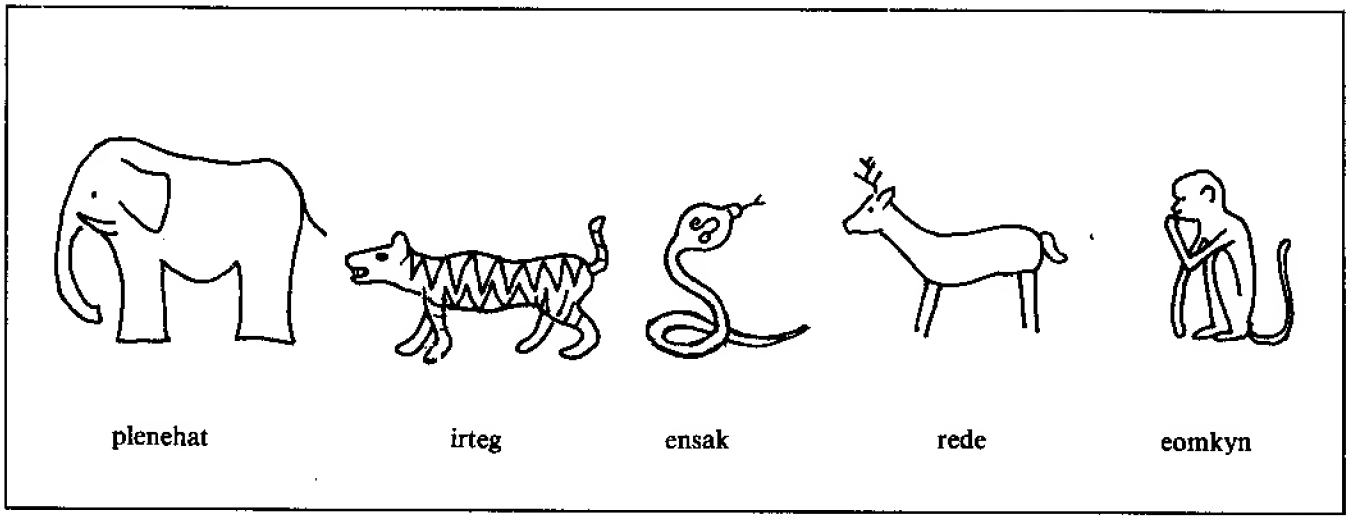
Here is a sample word-search on the topic of clothes. Ring one word only and let the children find the others for themselves. You may wish to give them a limited time, like ten minutes. This adds to the intensity of excitement!



Five words in this word-search have been ringed. There are eight more articles of clothing hidden here. I wonder if you can find them!

j. Jumbled letters

It is always more difficult to **un**jumble letters than to jumble them up, so don't let this get too difficult. Again, it is best to work on vocabulary related to a single topic. You could get children to unjumble the letters below the *matching* picture. For example,



For slightly more advanced children, you could give context clues in sentences, for example :

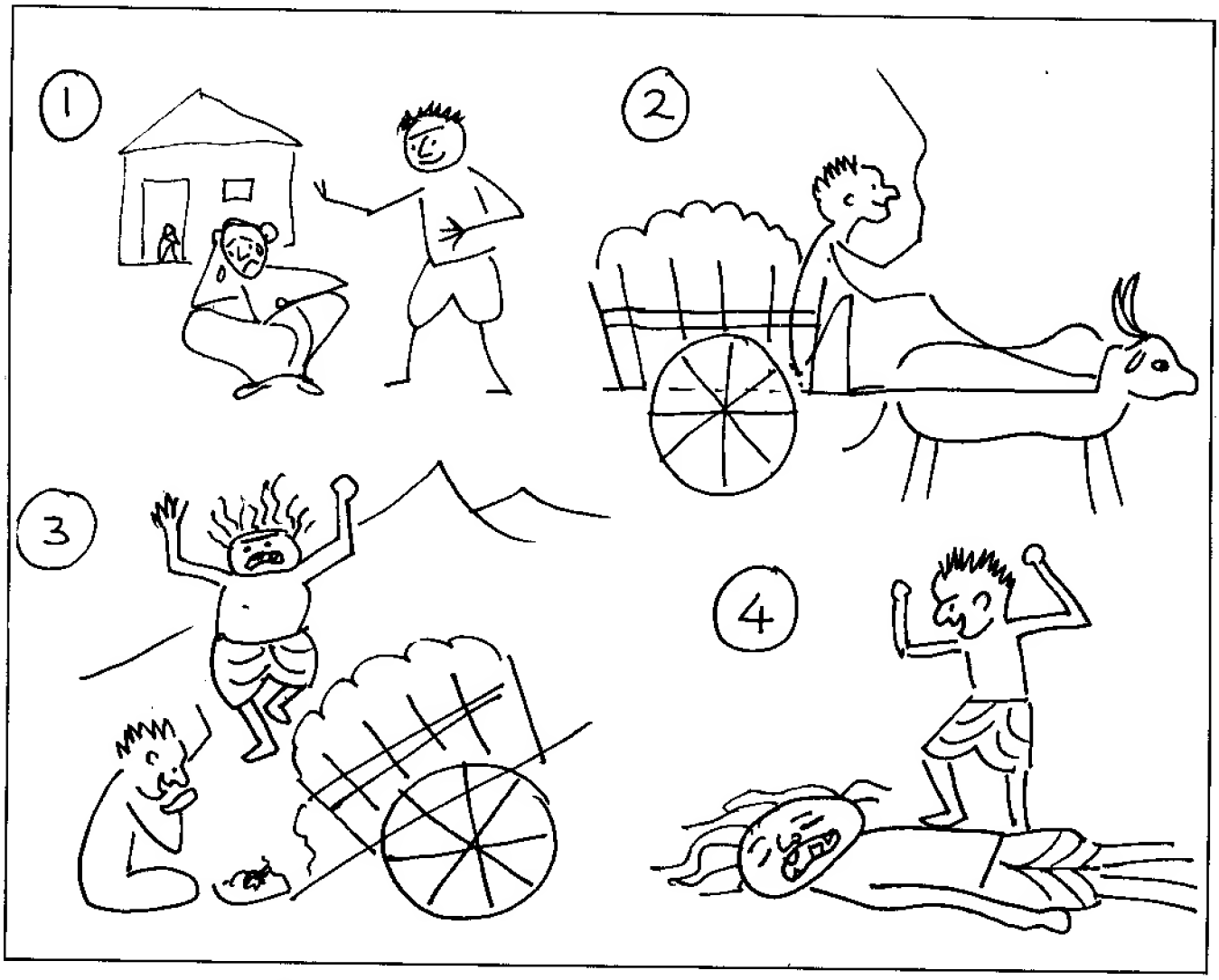
1. A *folw* hunts in a pack.
2. A *sibon* has curly horns.

3. *Oral work*

Oral work does not stop as soon as children can read and write—quite the reverse. We all spend more of our lives talking and listening than reading or writing. All structure exercises should be practised orally before they are written. Talking should always begin a lesson and many lessons will only involve talking. Here are a few ideas for stimulating meaningful oral work with the blackboard.

a. **Story telling**

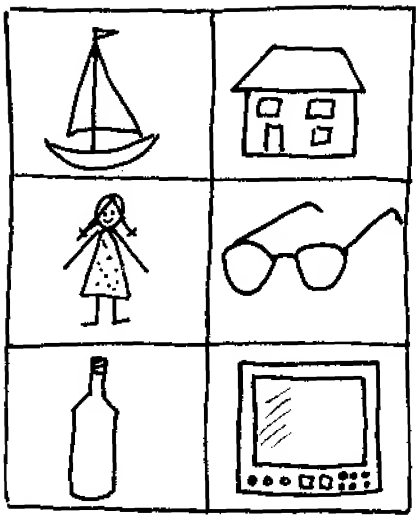
Nobody is too old to enjoy a story. If it has illustrations it is especially enjoyable. But we don't always tell children stories from picture books. Sometimes they are the stories our grandmothers told us—and some of those stories are the best ones. Try to get the trick of drawing *while* you tell a story. Very simple pictures will do. Keep the story going all the time. The children will get bored if you spend minutes drawing a masterpiece on the board. Here are some simple drawings to illustrate the story of Bhima and Bakasura. (Each drawing took less than 20 seconds to draw.) Not perfect, but enough to help along the story!



After you have told the story, get the children to act it out in their own words.

Oral work (continued)

b. **Draw what I say**

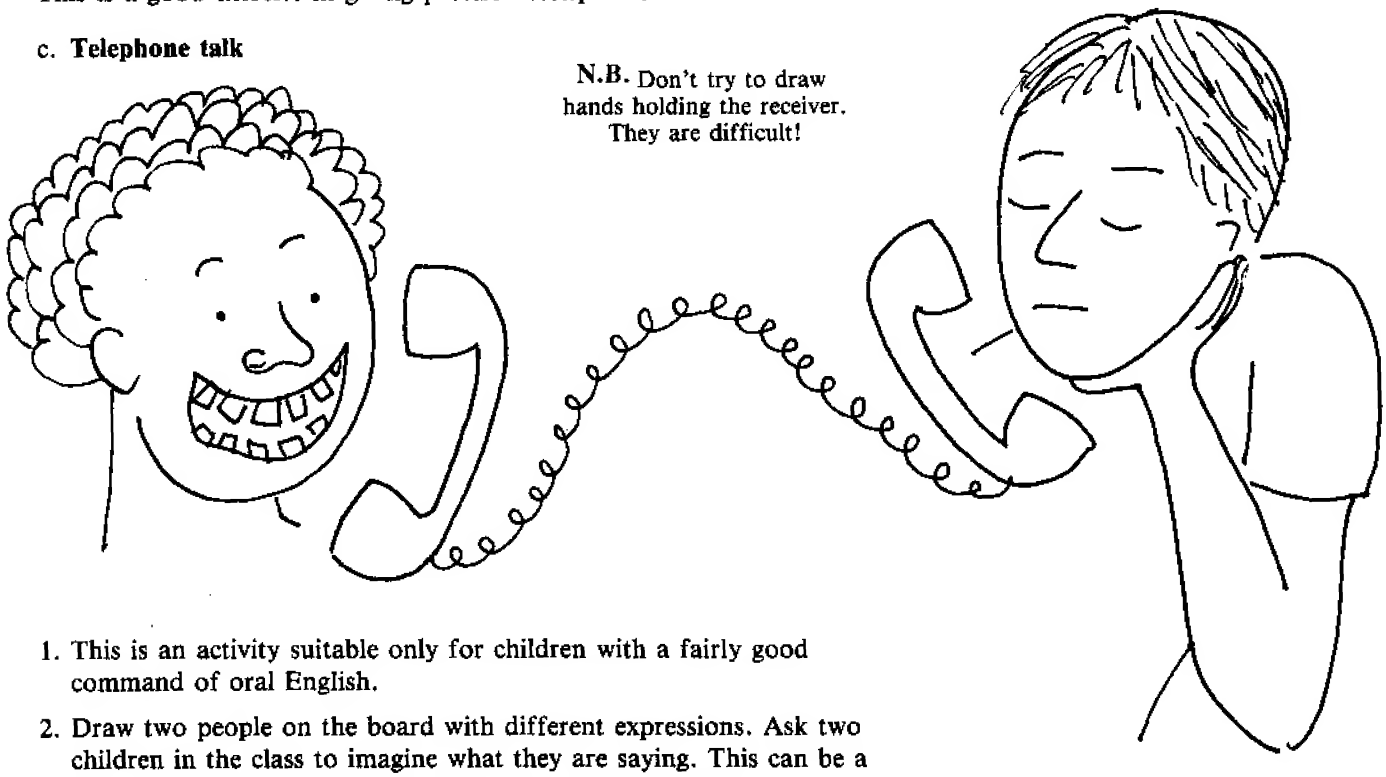


1. Draw a grid of six squares on the board like this :
2. Draw a different picture in each square. Then ask different children to describe what you have drawn. For example, 'In the middle left hand square there is a girl. She is wearing a spotted dress and has two plaits.' Get them to describe each picture in as much detail as possible.
3. Give each child a piece of paper or a slate and ask them to draw two similar grids of six squares. Tell them to work in pairs. Each child should draw six pictures in *one* grid without letting the other see.
4. One member of a pair then describes his/her pictures and the other draws the same pictures, correctly placed, in his/her empty grid. They are still not allowed to look at each other's work.
5. Then the second child tells the first child what to draw in each box.
6. Finally, they compare their drawings. They have done well if their drawings are similar and placed in the same position on the grid.

This is a good exercise in giving precise descriptions.

c. **Telephone talk**

N.B. Don't try to draw hands holding the receiver. They are difficult!



1. This is an activity suitable only for children with a fairly good command of oral English.
2. Draw two people on the board with different expressions. Ask two children in the class to imagine what they are saying. This can be a very amusing drama activity as they act out the telephone conversation. Give several pairs a chance to act by drawing different types. A variety of expressions is shown on pages 10 and 11.
3. A variation of this idea is to draw a conversation between a person and a policeman, doctor, dentist, chemist, waiter, businessman or film star. For suitable pictures, see pages 13-16.

Oral work (continued)

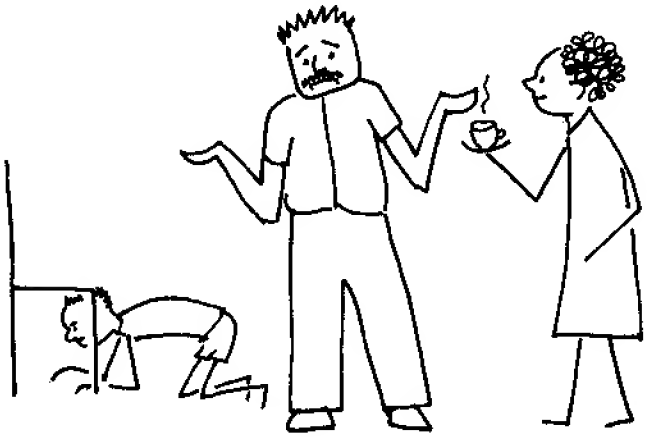
d. Pictures to be described or interpreted

A simple scene can be drawn on the board e.g. those on pages 29, 32, 39. At lower levels, it is enough if the children describe it in their own words. At higher levels, the children can use their imagination too. They could guess what has happened before or what will happen next. A variety of suggestions should be encouraged.

What has just happened?

What is going to happen?

Sometimes it is fun to draw an intentionally ambiguous picture whose meaning is not clear. Your pupils can explain the situation in their own way.



Here, for example, one child may say that father is worried because he has lost his glasses. His son looks for them under the chair. His wife soothes him with a cup of tea. Another child might say that father has been told by the doctor to lose weight. His mother brings him tea but not his usual sweets. His son is chasing a cockroach! Both descriptions are fine.

e. Information-gap pictures

1. Tell one student to stand with his/her back to the board while you or another student draws a picture on it.
2. The student who cannot see the picture asks the class (who can) a number of questions which can only be answered by 'yes' or 'no'. For example, 'Is it bigger than my hand?' 'Is it made of metal?' 'Can you use it in the kitchen?' etc.
3. If the guesser has not found the answer after 20 questions (s)he is out and another student has a chance to guess a different picture.
4. There are lots of other ways of giving information on the board which some can and some can't see. The idea is to get your students to find out about it.

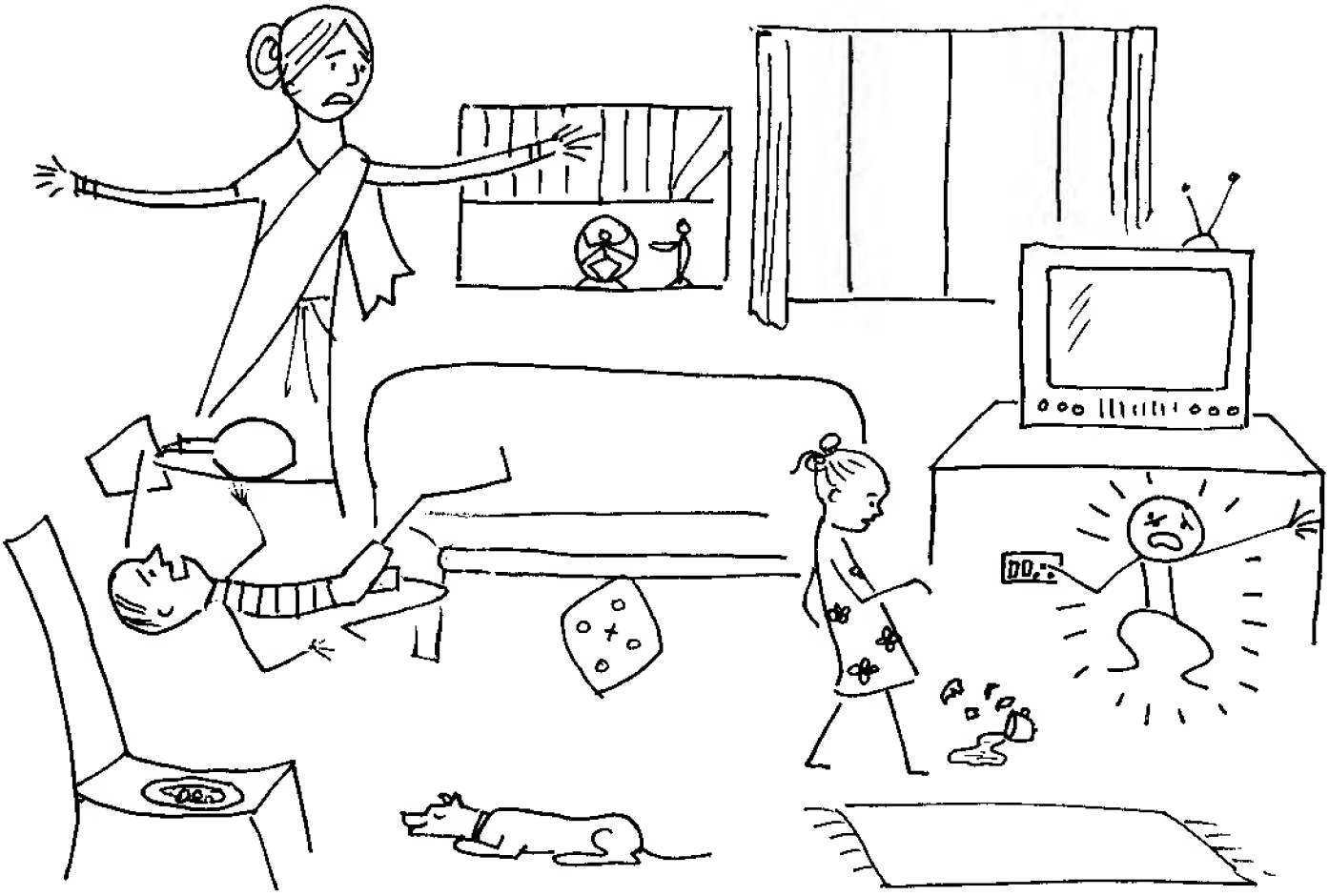
4. *Useful ideas for teaching language structure*

You will probably be familiar with most of the techniques mentioned in this section. However, it may help you to vary your blackboard work if they are set out together. Use them as you need them—to reinforce language taught in the textbook or to give children work which relates to your own situation and therefore cannot be found in a book.

a. **Substitution tables**

These are particularly useful for children who do not speak English at home. The children have to *think* in order to produce a sensible sentence. However, the language structure is given so that there is little possibility that they will reinforce incorrect English by writing without guidance.

Here is an example of a substitution table which reinforces correct usage of the present perfect tense. It could be used as a follow-up to the picture on page 32.



The boy The dog The girl The baby The mother	has	spilt the tea. fallen off the sofa. had an electric shock. eaten the cake. come into the room.

There are many other examples of substitution tables in Part A of this book.

Language structure (continued)

b. **Choose the right word**
This type of exercise is useful in writing about a school visit or science experiment. If the children are not yet ready to write independently, they can still write with understanding about personal experiences which cannot be found in a book.

For example :

Today we made [levers. / ball bearings. / pulleys.] We used two [milk tins / books / cups]

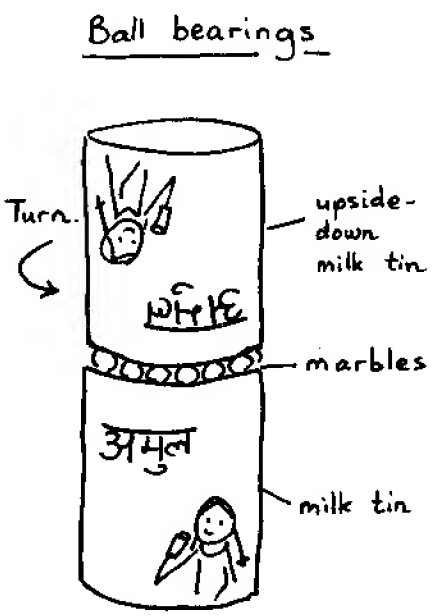
and twenty [hair clips. / safety pins. / marbles.] We put the [hair clips / marbles / safety pins] on

the [bottom / rim / side] of a milk tin. We turned the other

tin [upside down / the right way up / sideways] and rested it on the [hair clips. / safety pins. / marbles.]

We turned the top tin. It turned [slowly / fast]

because the marbles acted as [levers. / ball bearings. / pulleys.]



The children write out the correct account of the experiment. Jumbled labels can also be matched to a diagram of the experiment.

c. **Sequencing exercises**
This is another useful way of articulating an experience. Write a sequence of events in the wrong order. Then ask the children to write them again in the right sequence. For example :

This morning Vasanta Reddy came to our school.

First she explained what the dance was about.

At the end we all clapped because it was beautiful.

Then she did a dance about Krishna stealing the butter.

She is a Bharata Natyam dancer.

Language structure (continued)

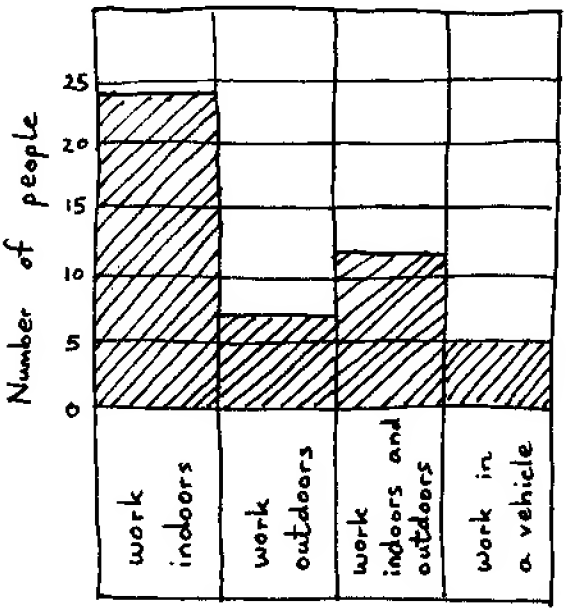
d. **Multiple choice questions**

Multiple choice questions are often used in tests because they are so easy to mark. They have limited use as children do not learn how to *produce* language by ticking A, B, C or D. However, they are useful for assessing how much each child has learned or understood. They can also be used in questionnaires which the children can copy from the board and complete by interviewing someone—for homework. Here is a sample questionnaire to be given to a friendly adult :

1. Do you work
   a. outdoors?
   b. indoors?
   c. both outdoors and indoors?
   d. in a vehicle (e.g. bus, lorry or car)?

2. Do you work
   a. less than five hours a day?
   b. five to eight hours a day?
   c. eight to eleven hours a day?
   d. more than eleven hours a day?

3. Do you enjoy your work
   a. all the time?
   b. most of the time?
   c. some of the time?
   d. never?



A great deal of work can be done as a result of a questionnaire like this. You can total the number of people who answered a, b, c and d and then make graphs with your results. For example, here is a graph made by a class of 48 children about the work places of the adults they questioned.

Then you can do some useful work on comparatives and superlatives. A number of sentences can be made from this pattern :

More / Fewer people worked _____ than _____.

The most people worked _____.

The fewest people worked _____.

Language structure (continued)

e. Multiple choice sentences

These are similar to multiple choice questions, but can be written out as complete sentences. So they can be used to reinforce learning, not simply to test. In this example, they are used to initiate a record of a survey of the school grounds. The children can be sent out in groups to look for evidence of butterflies, parrots, ants and frogs. When they return to class you can have an interesting discussion about animal habitats. They can record their findings using a multiple choice exercise on the board like this :

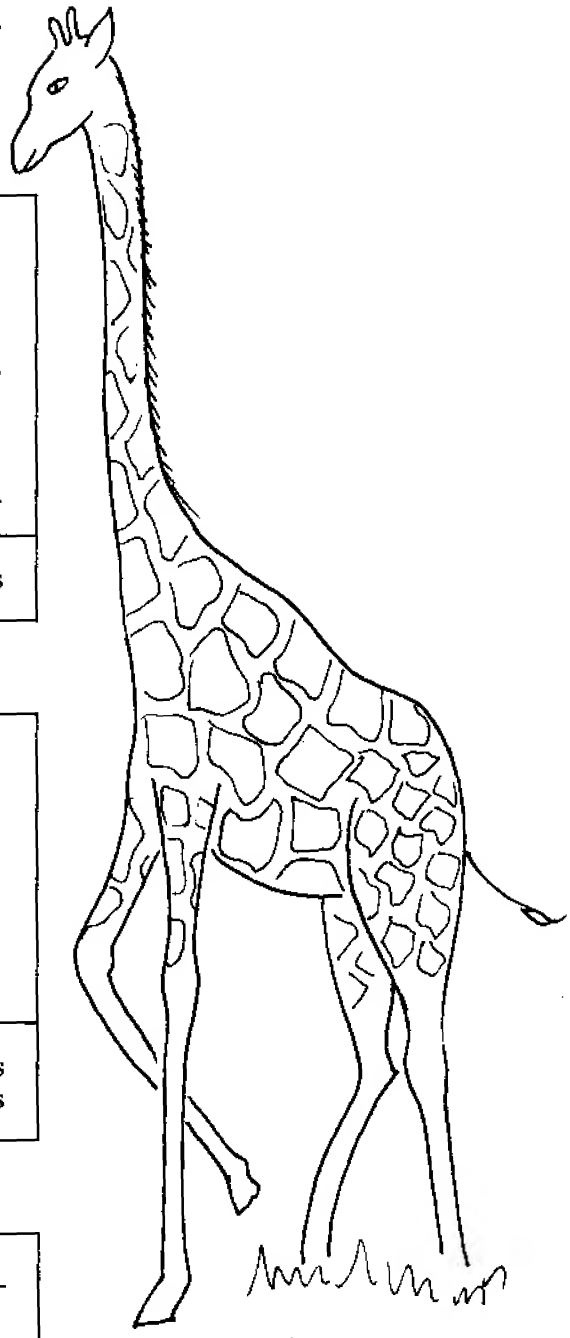
Animal habitats in our school

1. We found butterflies	a. near the flower garden. b. by the rocks. c. by the front gate.
2. This was because	a. butterflies look like flowers. b. butterflies eat nectar from flowers. c. butterflies like cars.
3. We found most parrots	a. on the games field. b. by the Head Teacher's study. c. on the guava trees.
4. This was because	a. parrots play cricket. b. parrots learn long words from the Head Teacher. c. parrots eat fruit.
5. We found ants	a. everywhere. b. nowhere. c. by Class IV.
6. This was because	a. ants can live anywhere. b. ants are very rare creatures. c. ants like eating children.
7. We found frog droppings	a. near the hall. b. behind Class VI. c. by the swings.
8. This was because	a. frogs like sunny places. b. frogs like damp, dark places. c. frogs like dusty places.

Language structure (continued)

f. Blank-filling exercises

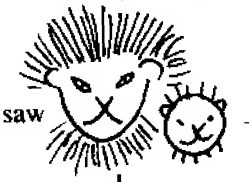
This is another useful way of getting children to record experiences before they are ready to use their own words. For beginners, it is important to supply the missing words in mixed order at the bottom of the board. You can, of course, use this technique at a number of different levels. For example, after a trip to the zoo :



A good dodge - If you can't draw feet, cover them up with grass!

Level 1

On Wednesday we went to the _____.



We saw _____. We saw _____.

We saw _____. We saw _____.

parrots monkeys zoo lions camels

Level 2

On Wednesday, we went to the _____. We went there by _____. When we arrived, Mrs Ali bought our _____. First we saw the _____. We felt rather frightened, but there was a deep _____ between us and them. We bought some _____. They were nice, but Sarita dropped hers near the _____ _____. We had our lunch by the _____. We saw some _____ and _____ there. (etc.)

bears' cage zoo flamingoes ditch tickets
ice creams storks lake bus lions

Level 3

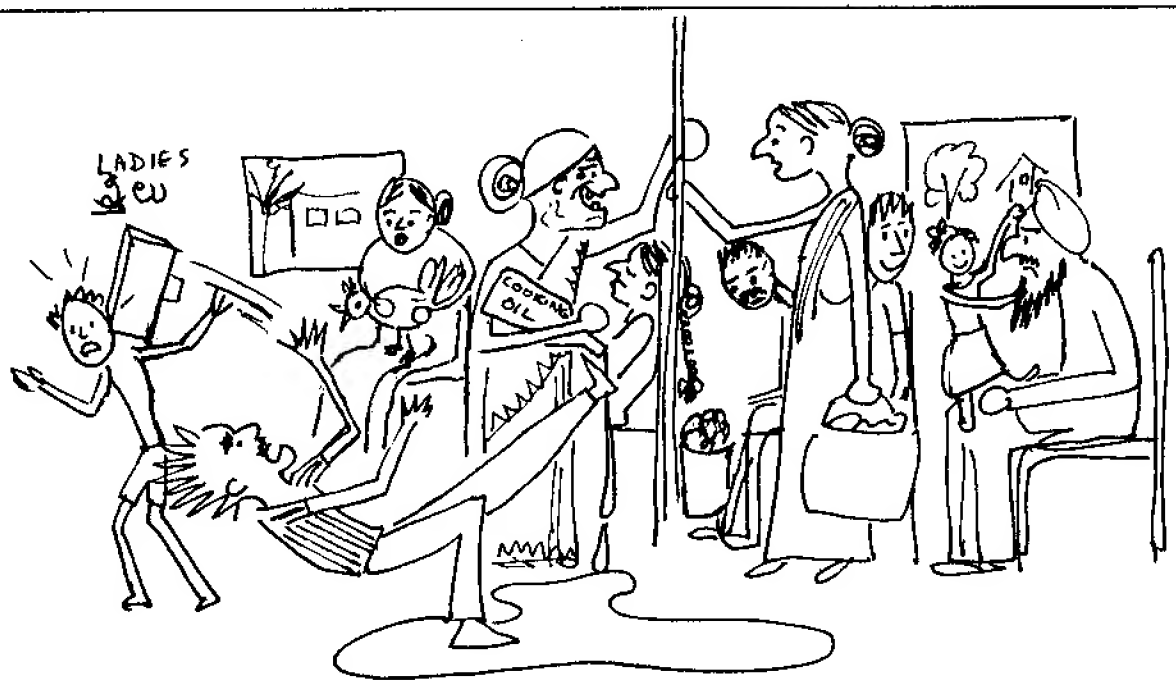
On Wednesday _____
_____.

We first saw _____
_____. Then _____
_____. The most beautiful creature was _____
_____ because _____. The best part of the day was _____
_____. The worst part of the day was _____
because _____. (etc.)

Language structure (continued)

g. Questions to be answered in complete sentences

Multiple choice, blank-filling, re-ordering and substitution tables are all useful at the early levels of language learning. However, an English teacher's aim should always be to get children using their own language independently. Answering questions in complete sentences is a first step towards independent writing, because the response has to be framed in the child's own words. The questions can be given at a number of different levels to suit the learner's ability to respond. For example, here are some questions on a situation in a bus. You would probably need to draw a detailed picture like this *before* the lesson.



Level 1

'Either/or' questions, for example :

1. Are these people in a bus or a car?
2. Is the baby a boy or a girl?

'Yes/No' questions, for example :

1. Is the man with a beard looking happy?
2. Is there a hen on the bus?

Level 2

'Wh..... and How .....' questions, for example :

1. What is the old woman holding?
2. Why has the man with a striped shirt slipped?
3. Where is the baby sitting?
4. Who is sleeping?
5. Which woman is smiling?
6. How many men are in the bus?

Level 3

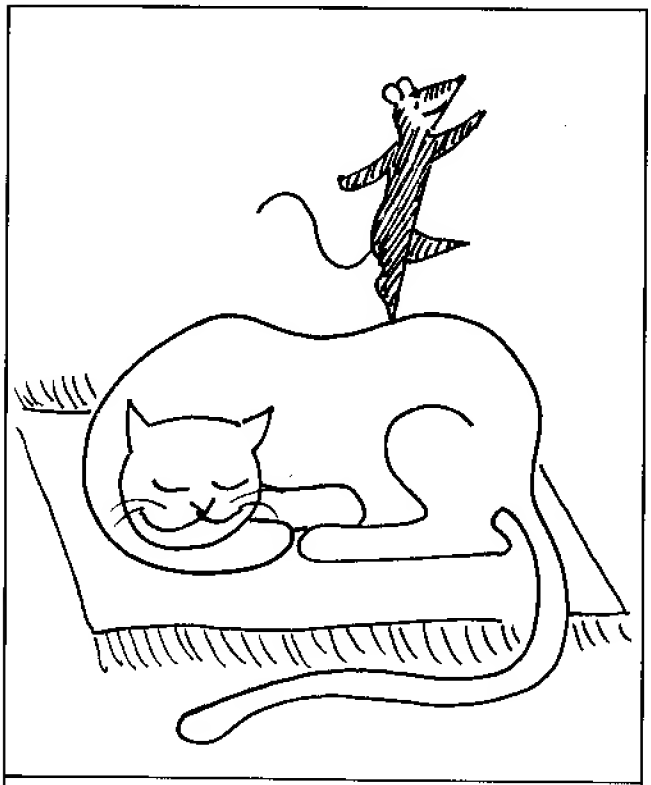
'What do you think?' questions, for example :

1. What do you think each character is saying or thinking?
2. What do you think will happen next?

5. *Free writing*

All second language learners need a foundation in the structures of the language. But they should not depend on substitution tables for ever. In real life, we have to use language for infinitely varied purposes. We have to learn to choose the right structure for our needs. The blackboard is very useful in leading children from controlled structure work to independent writing.

a. **Level 1 : Describing pictures**



sleeping dancing
white black

Even in the first two years of English, children can write a few independent sentences. Draw a picture on the board using vocabulary the children are familiar with. Ask them to write as much as they can about it. Write the difficult words on the board. For example, they might write sentences like these :

The cat is on the mat. It is sleeping. The rat is on the cat. It is dancing. The cat is white. The rat is black.

N.B. : If you copy this picture onto the blackboard the cat will be **black** *and the rat* **white!**

b. **Level 2 : Describing a person or an animal**

This is a useful first step towards free writing. Ask the children to describe a familiar person or animal. Write the beginnings of sentences on the board and ask the children to write their own paragraph. For example,

My mother/My aunt

My mother's (aunt's) name is _____.
She is short/tall/thin/plump.
She speaks Kannada/Telugu/Tamil/Hindi etc.
She likes eating _____.
She doesn't like eating _____.
She is good at _____.

Free writing (continued)

c. Level 2 : Collective stories

Unfortunately, some teachers are unwilling to let children write their own stories. This is partly because they do not recognise the importance of expressing one's own ideas in one's own way. It is also because they have a well-founded fear that the children will make too many mistakes.

A way round this problem is to write a story on the board as it is composed. The teacher starts the story with an exciting leading sentence. Then each child in turn makes up a sentence to follow on from the last. The teacher writes each sentence on the board, correcting any grammatical errors. In this way, the children learn that they can let the story go wherever they like—and are prepared for the greater freedom of writing their own stories. Here is an example of a collective story composed by a class of nine- to eleven-year-olds. We were all kept in suspense to see what would happen next—and I, for one, did not expect the ending!

Teacher A tiger was running through the jungle and met a deer. "I am going to eat you up," said the tiger.

Child 1 "Please don't eat me," said the deer. "I haven't eaten anything for a long time, so I am very thin."

Child 2 "But what can I do? I am very hungry," said the tiger.

Child 3 "I've just seen a dead elephant," said the deer. "I'll show it to you."

Child 4 "I won't eat a dead animal," shouted the tiger.

Child 5 "But if you eat me, my mother will be sad," cried the deer.

Child 6 "I don't care," said the tiger.

Child 7 "If you don't care, go and find some sticks. Then you can cook me," said the deer.

Child 8 The tiger went to find some sticks. Then the deer ran away. The tiger saw the deer running away.

Child 9 "Stop! Stop! Stop!" shouted the tiger.

Child 10 The deer turned back to the tiger and said, "I won't stop."

Child 11 Then the deer banged into a tree and it fell. Its leg broke. The tiger ran to the deer.

Child 12 "Don't eat me. My leg is broken," said the deer.

Child 13 "That doesn't bother me," said the tiger and it ate up the deer.

Child 14 "Lovely!" said the tiger.

Free writing (continued)

d. **Level 3 : Story writing**
Here are a few golden rules :

1. Always give children a clear idea of what you expect of them. If you tell them to write about anything they like, their minds will go blank.
2. Stimulate their imaginations beforehand by reading them another story or a poem, by showing them interesting pictures, or by playing them a piece of music.
3. Encourage the use of detail and interesting words. Write useful words on the board.
4. Never allow children to copy stories from books. (Suspect anything that is too perfect!)
5. After you have corrected the English and punctuation, get the children to make out a fair copy and illustrate it if they wish.
6. Display fair copies of stories on the wall, read them out to the class or make them into little books for other children to read. We take more trouble with writing when we know someone is going to read it!

e. **Level 3 : Picture stories**
1. Picture sequences (like that on page 65) are useful for children who are not self-confident about writing stories. Draw a series of pictures on the board. Number them. Ask the children to tell the story orally before they write it. Here is another example :

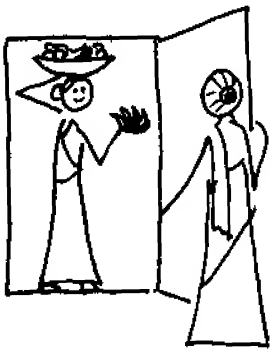
Free writing (continued)

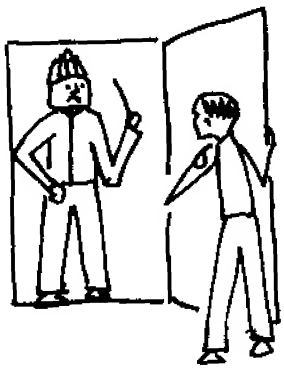
f. Level 3 : Finish the story
Write the first paragraph of an exciting adventure story on the board.
Ask the children to make up the rest. For example :

> I was walking along M.G. Road at 11 o'clock at night. The street was empty. I felt rather frightened so I walked fast. Then, all of a sudden I heard footsteps behind me. I turned round. To my horror I saw .....

g. Level 3 : Pictures to be described or interpreted
See page 67. These ideas can be used for written work as well as oral work. Many of the pictures in this book can be described. They can also be used as a basis for imaginative work, e.g. 'What do you think will happen next?'

h. Level 3 : Dialogues based on drama
See page 66 and the ideas in 'Telephone Talk'. These dialogues can be written after plenty of oral practice. A number of stories can be based on drama in this way. You could, for example draw a variety of people at the door. Ask different pairs of children to enact their conversations (the funnier the better). Finally, they can write their own dialogues.





i. Level 3 : Unusual picture combinations
Draw a number of unconnected pictures on the blackboard. Ask the children to make up a story which includes all of them. You will be surprised at the variety of the stories. For example :

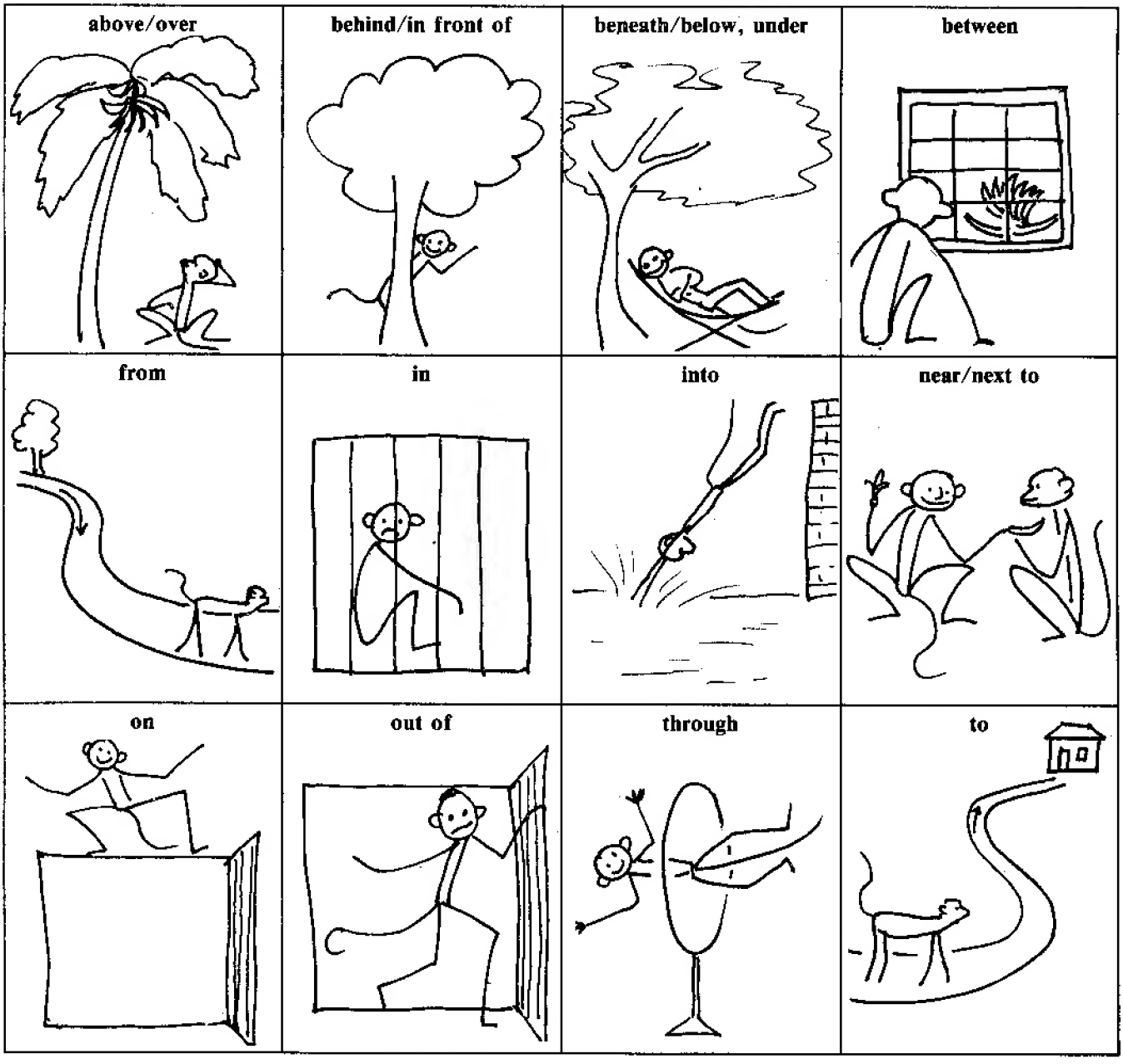
6. *Grammar*

The blackboard can be a useful tool for teaching grammar as you can illustrate different parts of speech. Nouns are the easiest ones to draw as you can usually point to the picture and say 'This is a _____.' The first part of this book contains many pictures of common nouns.

Other parts of speech need care as you cannot point to a picture and say 'This is graceful,' or 'This is dance.' Always be sure to use the parts of speech in the context of meaningful sentences. The pictures that follow may be useful to back up your teaching of grammar, but must of course be based on a lot of oral practice.

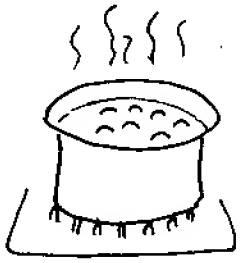
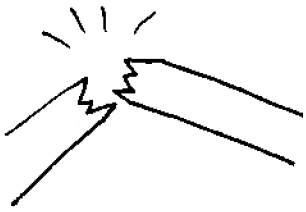
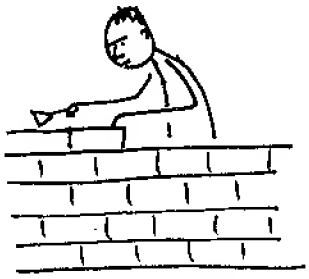
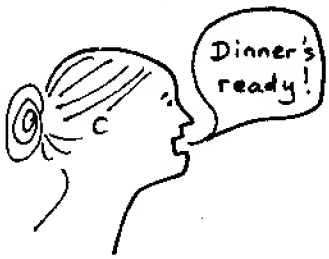
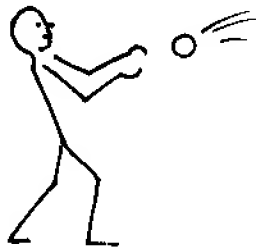
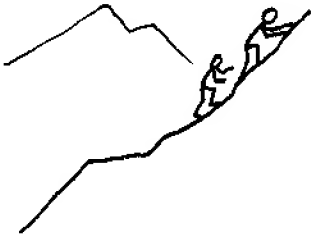
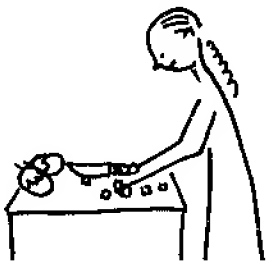
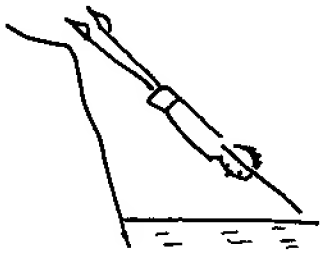
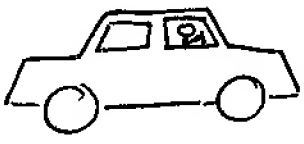
a. **Nouns** See pages 12 – 52.

b. **Prepositions**



Grammar (continued)

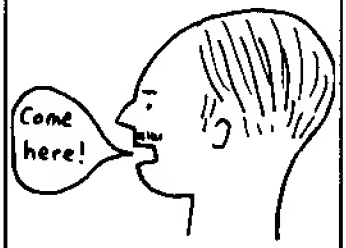
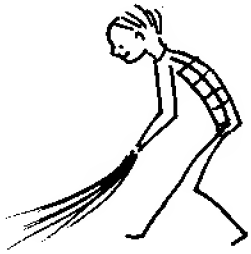
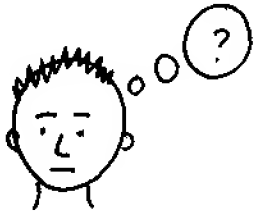
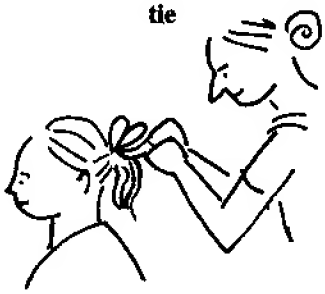
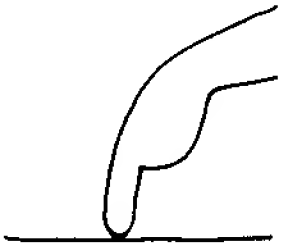
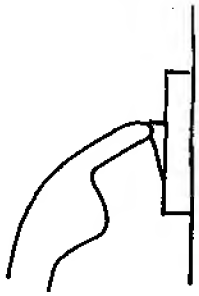
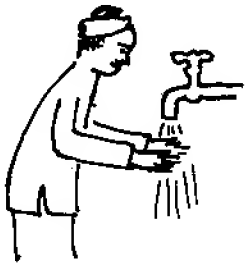
c. **Verbs**

blow 	**boil** 	**break** 	**build** 
burn 	**buy** 	**call** 	**carry** 
catch 	**climb** 	**cook** 	**crawl** 
cry 	**cut** 	**dance** 	**dig** 
dive 	**draw** 	**drink** 	**drive** 

Grammar: verbs (continued)

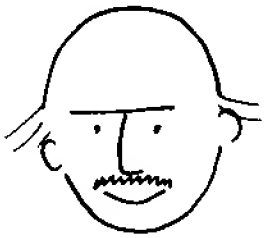
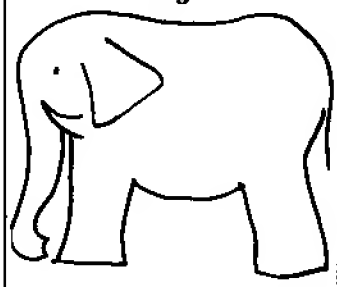
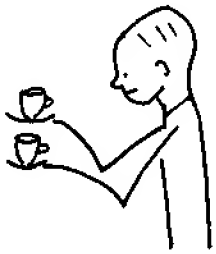
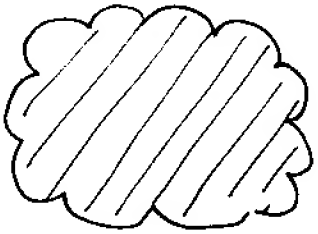
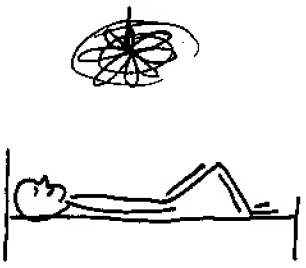
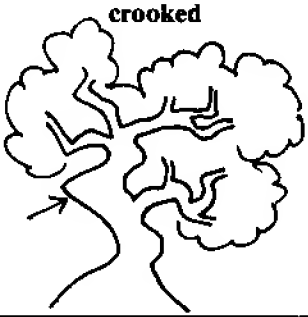
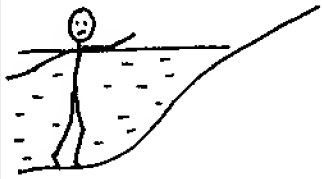
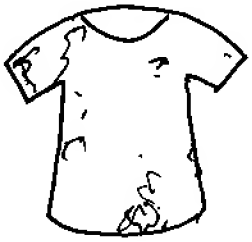
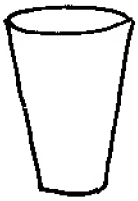
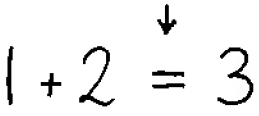
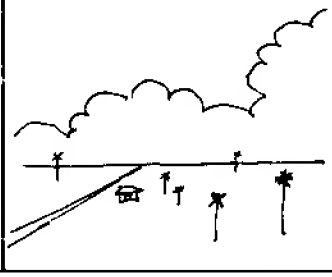
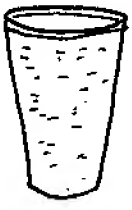
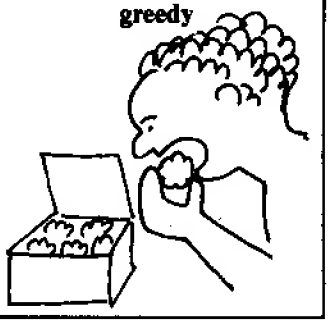
Grammar: verbs (continued)

Grammar: verbs (continued)

skip 	**sleep** 	**slip** 	**smell** 
smile 	**speak** 	**stand** 	**stir** 
sweep 	**swim** 	**think** 	**throw** 
tie 	**touch** 	**turn on/off** 	**walk** 
wash 	**wave** 	**write** 	**yawn** 

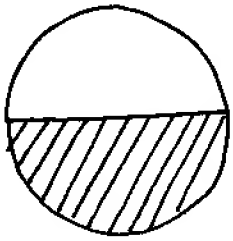
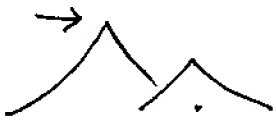
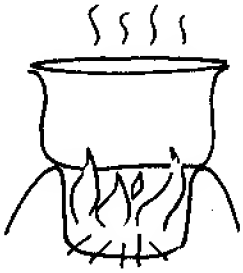
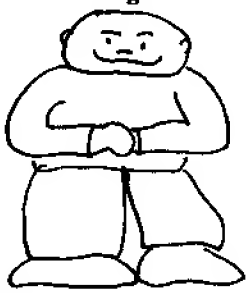
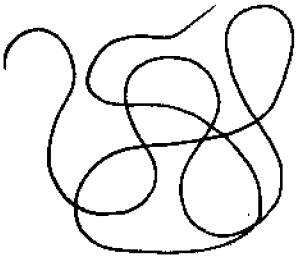
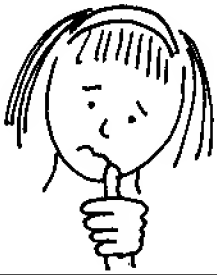
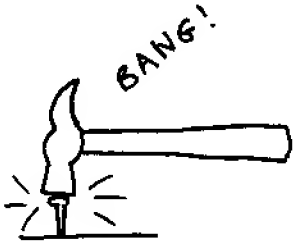
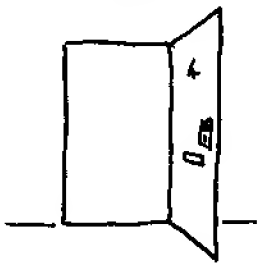
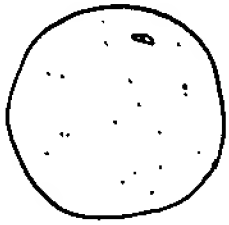
Grammar (continued)

Adjectives *NB : For adjectives to do with people's feelings and expressions, see pages 10 and 11.*
Similar pictures can be used for related adverbs.

asleep 	**bad** 	**bald** 	**big** 
brave 	**careful** 	**clean** 	**cloudy** 
cold 	**cool** 	**crooked** 	**deep** 
dirty 	**empty** 	**equal** 	**fast** 
fat 	**flat** 	**full** 	**greedy** 

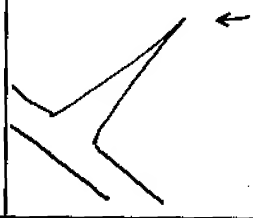
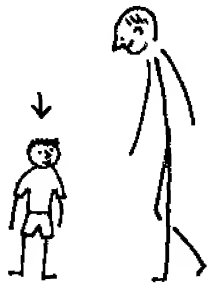
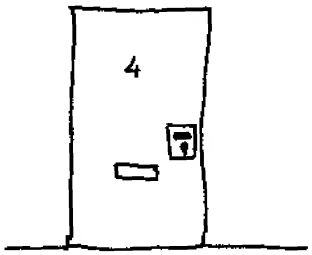
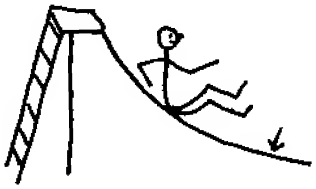
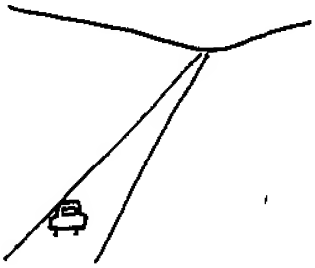
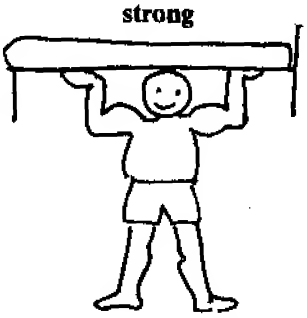
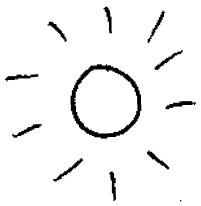
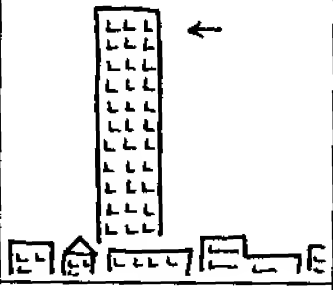
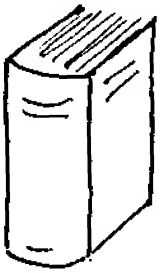
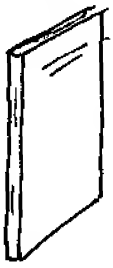
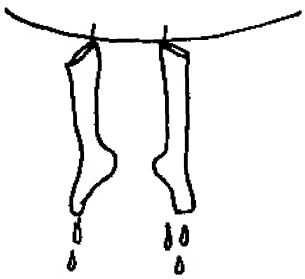
Grammar: adjectives (continued)

NB : Similar pictures can be used for related adverbs.

half 	**heavy** 	**high** 	**hot** 
huge 	**ill** 	**late** 	**little/small** 
long 	**narrow** 	**neat** 	**nervous** 
new 	**noisy** 	**old** 	**open** 
quiet 	**rainy** 	**right** 	**round** 

Grammar: adjectives (continued)

NB : Similar pictures can be used for related adverbs.

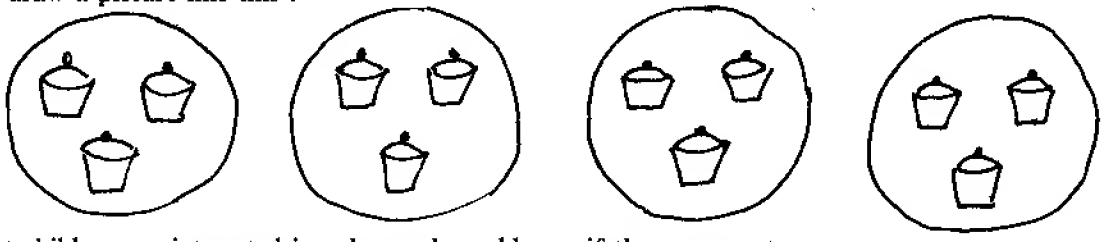
shallow 	**sharp** 	**short** 	**shut** 
slow (for **small** see **little**) 	**smooth** 	**straight** 	**strong** 
sunny 	**tall** 	**thick** 	**thin** 
thirsty 	**tiny** 	**untidy** 	**weak** 
wet 	**wild** 	**wrong** 	**young** 

MATHEMATICS

One of the beauties of the blackboard is that it enables you to show *process*. You can draw three leaves on the board.

The children count them. Then, if you add one, you have the sum 3 + 1 = 4.

You can also take away. You only have to rub out the extra leaf to demonstrate four minus one. Much mathematical understanding is based on visual images—which can easily and quickly be shown on the blackboard. It is absolutely clear what you mean by 4 × 3 and 12 ÷ 4 if you draw a picture like this :

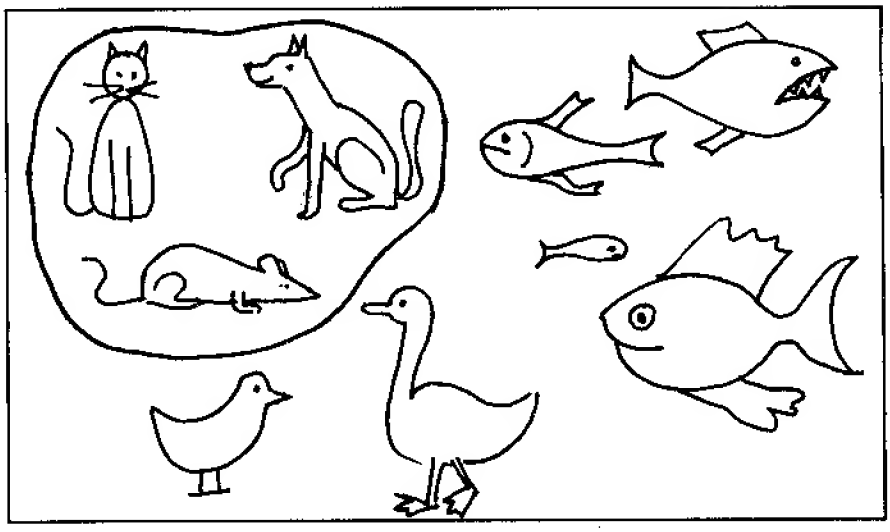


Most children are interested in cakes and would care if they were not shared fairly! They would probably be less interested in rows of figures without any visual guidance.

A book like this cannot deal with a subject as vast as maths. Only a few mathematical functions are mentioned in this section. They have been chosen because the blackboard is a particularly useful tool in teaching them. But remember, it is wonderful to be able to show the process of a sum on the board—from simple addition right up to the method of long division.

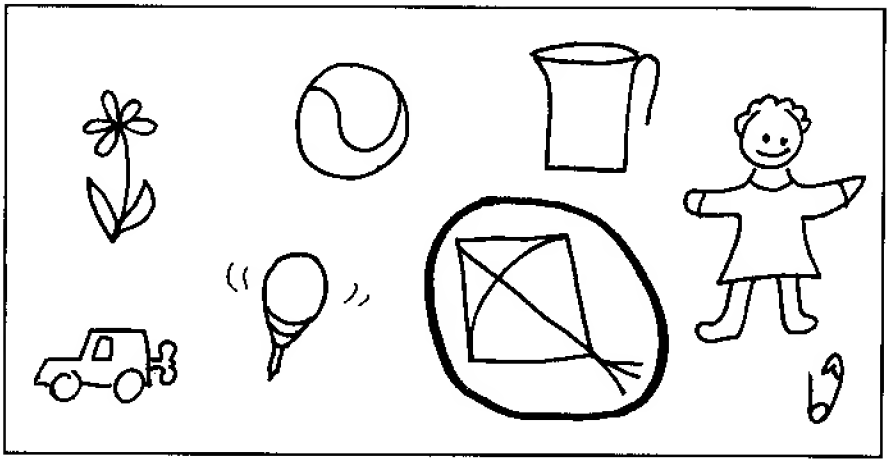
1. *Pre-numeracy*

Maths is an abstract subject and small children are not naturally good at understanding abstractions. They need to be taught with visual images which relate to what they know.

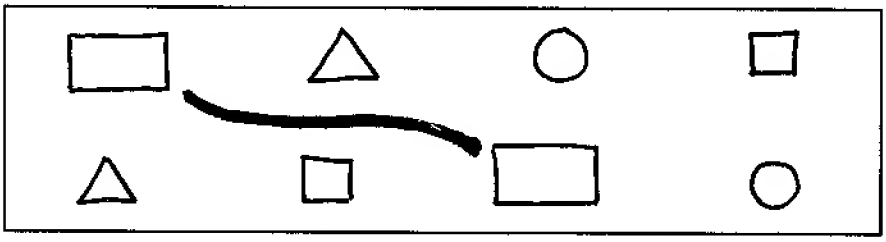


a. **Setting exercises**
Draw some familiar pictures on the board. Ask two or three children to come to the board and ring all those that belong to the same set or family. Rub out the circles after you have discussed the sets fully. Then the children can copy and ring the pictures into their books or slates.

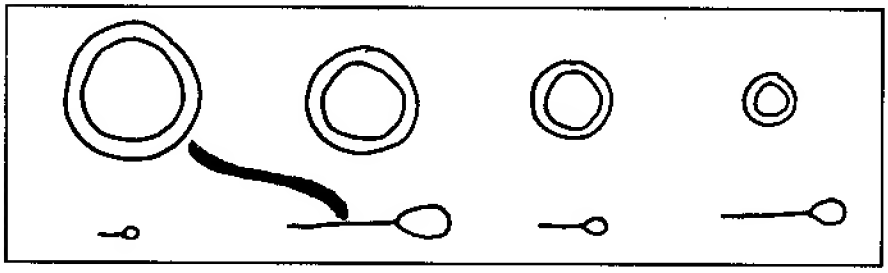
b. **Sorting exercises**
Draw a number of pictures on the board. Tell one or two children to circle those that belong to a particular set. Rub the circles off and tell the children to copy the pictures and sort them. Here they have to sort the toys.



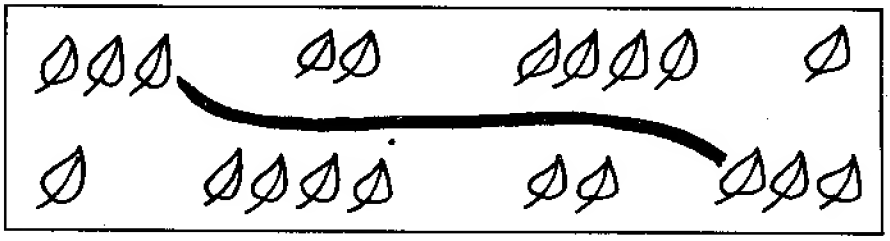
c. **Shape matching exercises**
The children learn the names of basic geometrical shapes and match them. Again a few children do the matching on the board. Then rub out the joining lines so that all the children can individually copy the shapes and join them.



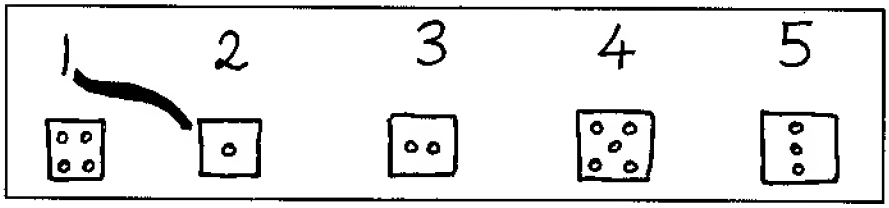
d. **Seriation exercises**
The understanding that things can get bigger and smaller is a key concept in maths. The children can recognise that these plates get smaller and smaller, and then match the spoons to the plates.



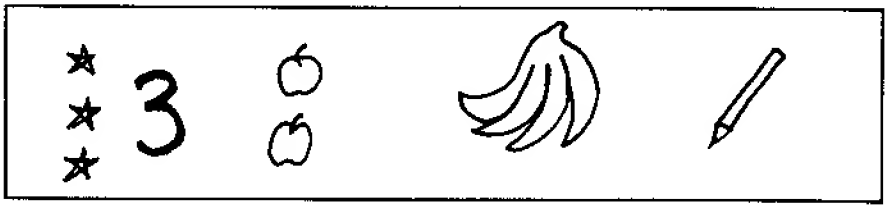
e. **Early counting exercises**
Matching objects of the same number below five is a first step towards counting. Again, this exercise can be copied.



f. **Matching number to numeral**
Only once the children can count, the numerals are matched to numbers.

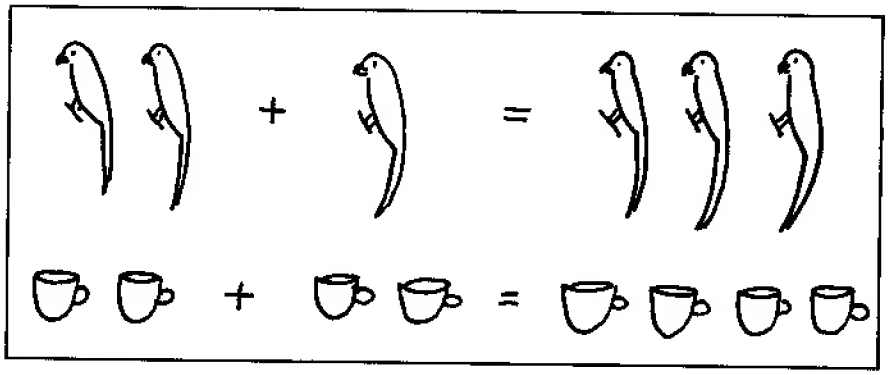


g. **Writing the numeral beside the number**
When the children are able to write the numerals, they can write them beside pictures you draw.

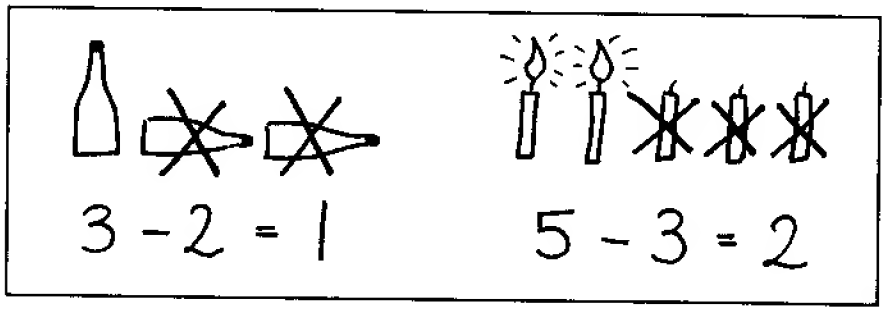


2. *Early numeracy*

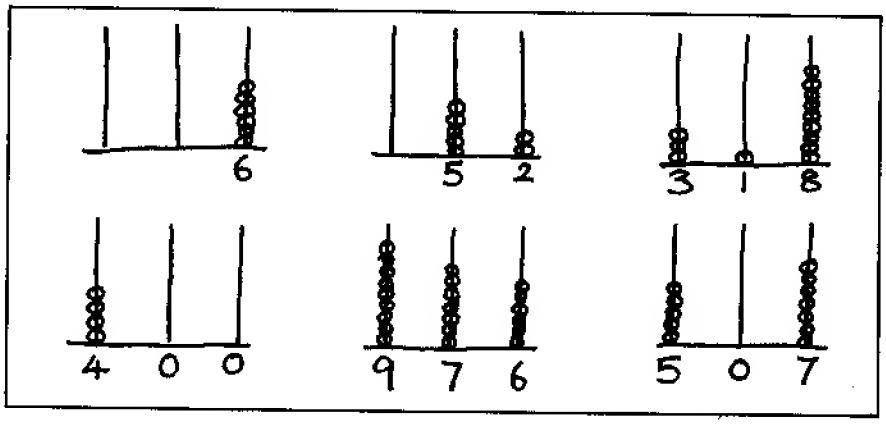
a. **Picture addition**
Children can add objects on the blackboard. Always be sure that they add objects of the same set. You cannot add a parrot and a cup and make two! When a few children have written the answers on the board, rub the answers out. The children can copy and complete the sums in exercise books or on slates.



b. **Picture subtraction**
As in addition, pictures can be used so as to make simple problems. Cross out the pictures to be subtracted. Tell the children to write numbers below the pictures.

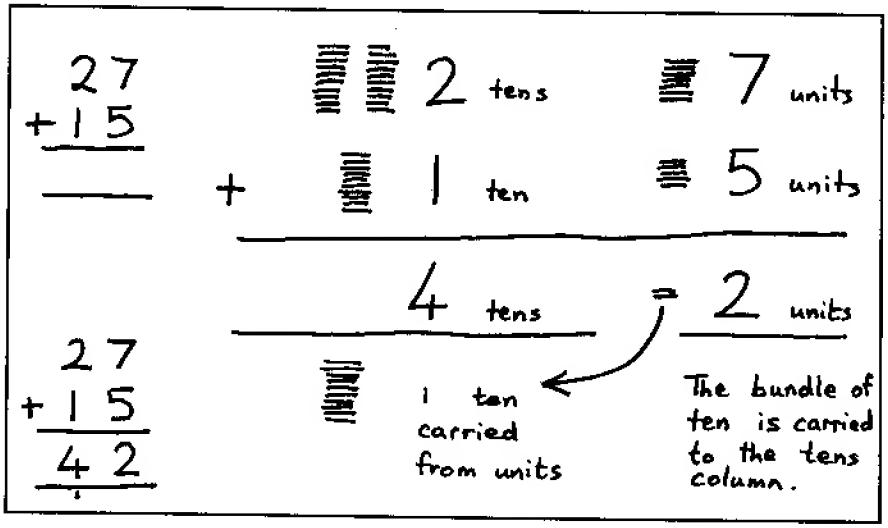


c. **Abacuses**
An abacus is a useful way of showing the meaning of hundreds, tens and units or place value. If you don't have one, you can draw several on the board and ask the children to write the number below.



d. **Bundles of ten**
The concept of 'carrying' from units to tens is always hard for young children to understand. If it can be done visually, the child is more likely to understand it.

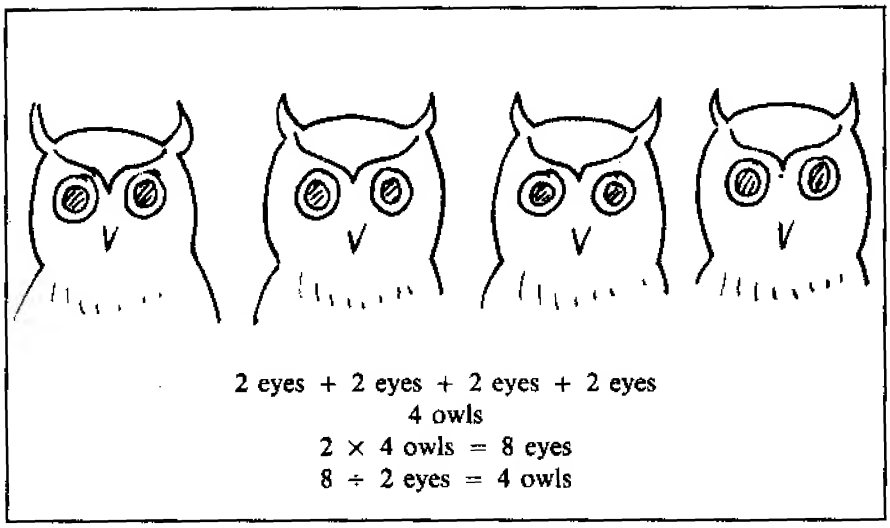
This may look complicated as a finished picture. However, if you explain what you are doing step by step, the *process* will become clear to the children, This process can be reversed to show 'borrowing' in subtraction.



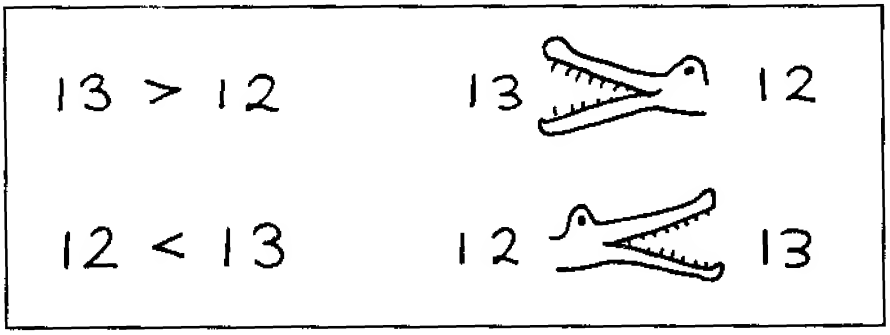
Early numeracy (continued)

e. Multiplication and division
The idea that multiplication is in fact multiple addition is easily built up with the help of the blackboard.

The same pictures can be used to show the reversed process of division.



f. Greater than/less than
These two signs often present problems. Tell the children that the sign is a crocodile's mouth. As it is *very* hungry, it always tries to eat up the bigger number. Draw the crocodile on the board like this.

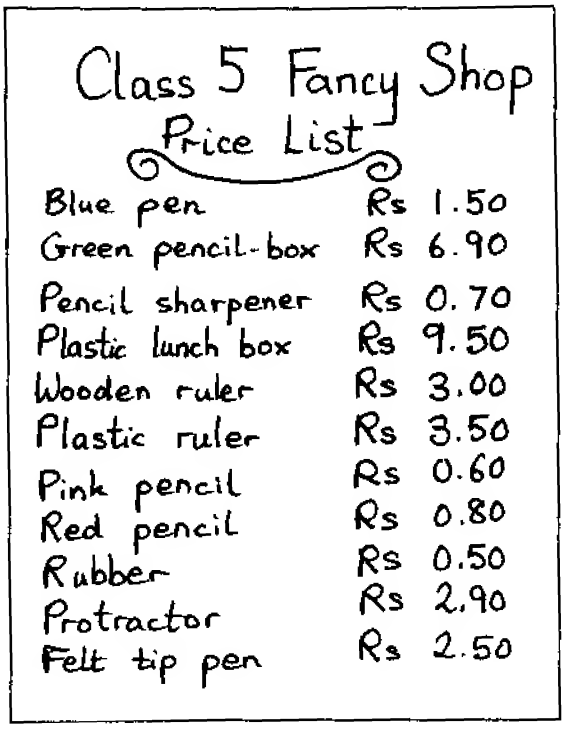


3. *Money*

Children should learn about money by using it. The best way to practise the use of money is to have shopping dramas in the classroom. Set up a 'shop' at the front and ask the children to contribute goods—for example pens, pencil boxes, rulers etc. Ask the children to give a rough price for each object (taking its age and condition into account!).
Write a price list on the blackboard.

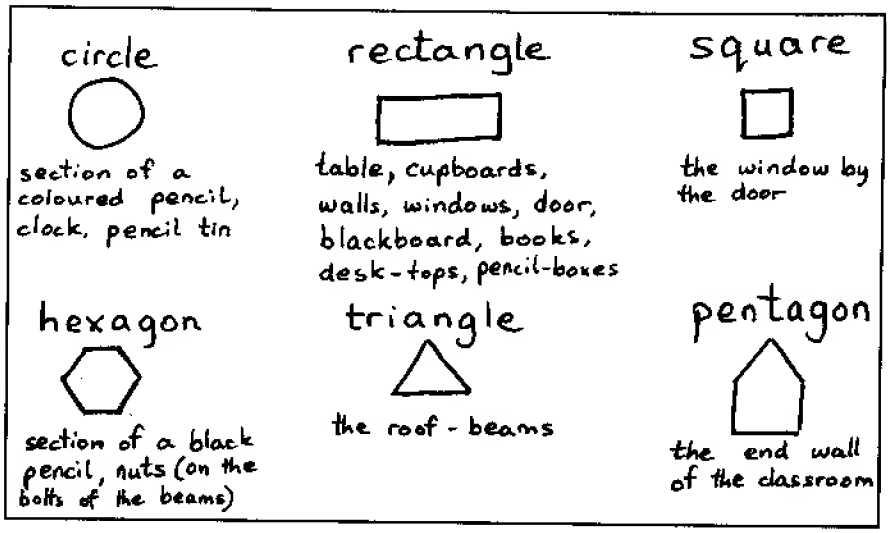
Put Rs 10, in small change, into a purse. Give a purse to several pairs of children in turn. Ask them to come and 'buy' goods they want. Act as the shopkeeper yourself. As a teaching tactic, overprice the goods and give the children too little change! This will keep them on their toes and they will enjoy the fun.

If two goods are bought, they can look at the board and do a quick addition sum in their heads.

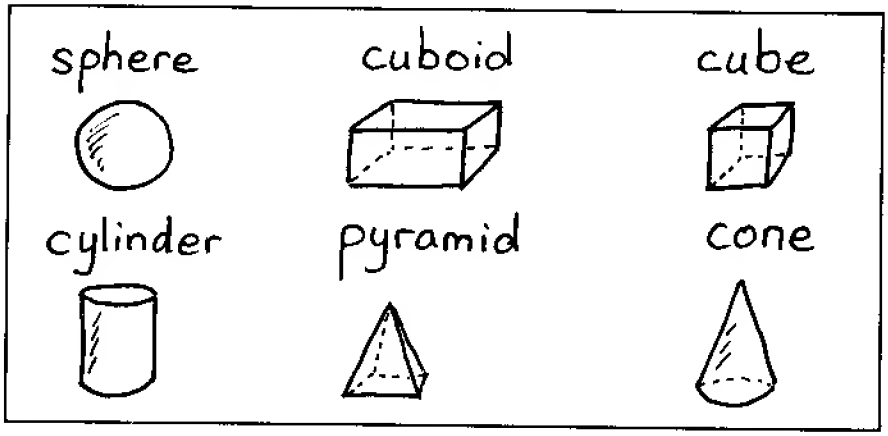


4. *Shape*

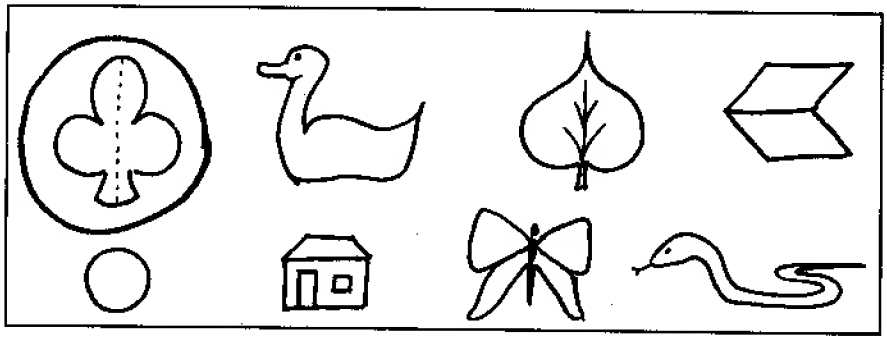
a. **Two-dimensional shapes**
Draw these shapes on the board. Get the children to name and copy them into their exercise books. Then ask them to look for any of these shapes in the classroom and list the objects in which they can be seen. Which shape is most commonly found and why? (It will probably be the rectangle because it fits easily into corners.) You might finish with findings like these :



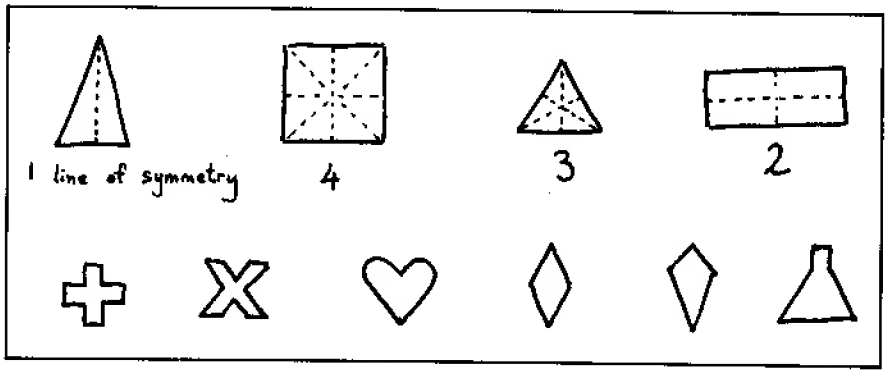
b. **Three-dimensional shapes**
Draw these three-dimensional shapes on the board. If possible bring at least one concrete example of each into the classroom. Identify the surfaces, vertices (corners), edges. Find the volume of the cubes and cuboids by measuring the length times breadth times height. Find the volume of cylinders and cones by filling them with water and emptying their contents into a measuring jug.



c. **Symmetry**
Draw several shapes on the board and ask the children to identify those which are symmetrical and draw the line of symmetry.



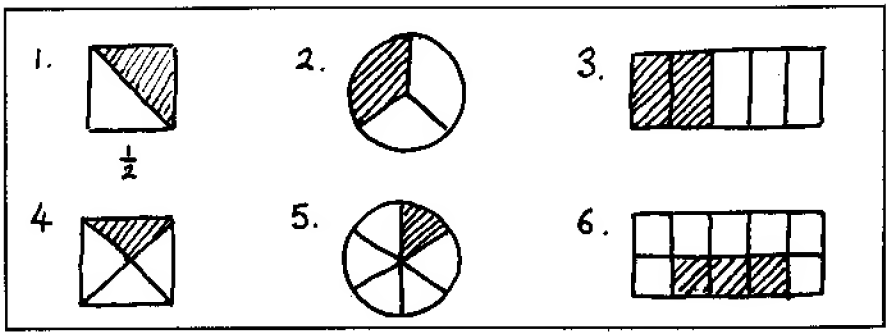
You could – at a higher level – draw shapes with several lines of symmetry. The children copy the shapes and draw the lines of symmetry over them. These might have one, two, three or four lines.



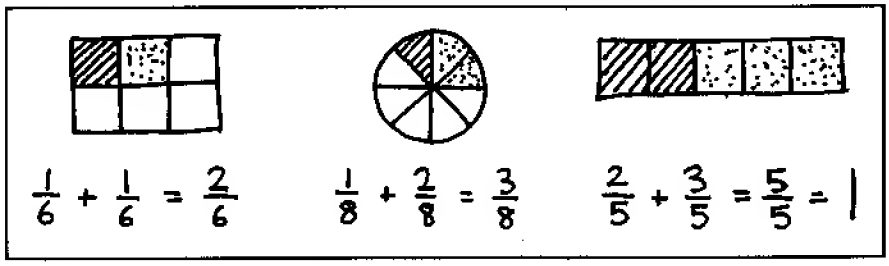
Fractions and measurement

5. *Fractions*

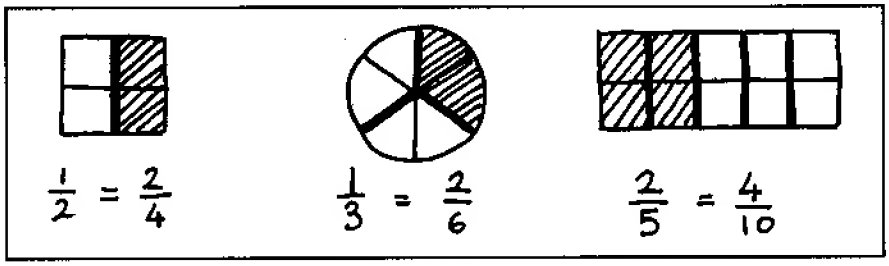
The board is especially useful in the teaching of fractions because they must be taught visually. In this exercise children can be asked what fraction of the shapes is shaded.



It is often difficult for children to understand that 1/6 + 1/6 does not equal 2/12 but 2/6. Visually, however, it is simple. A demonstration like this will help before the children start to add and subtract fractions.



Equivalent fractions – at a still higher level – are just a matter of common sense with some visual clues. A heavy line separates the fractions in lowest terms.



6. *Measurement*

It is difficult for textbooks to set meaningful measuring tasks because the textbook writer has not seen what is in your classroom! You can devise a table like this to suit your own needs :

Miss Ratnam's table	Estimated height 70 cm	Actual height 73 cm
My chair	85 cm	79 cm
My desk		
The door		
The wastepaper bin		

It is important for children to learn to estimate measurements before they get out the measuring tape.

If you have scales and weights, it is good for the children to get practice in weighing. A table similar to this one can be written on the board and completed by each group of children.

	Estimated weight	Actual weight
atlas		
Mira's bag		
the flower vase		
Surojit's shoe		
Amin's pencil box		
the box of chalk		

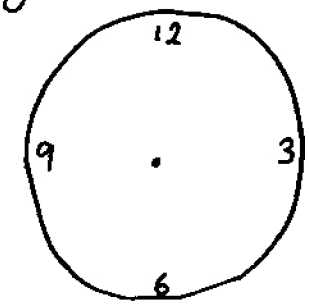
7. *Time*

a. Telling the time

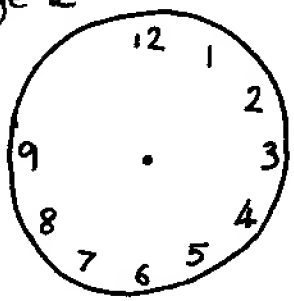
When you are teaching children how to tell the time, the blackboard comes into its own. You can draw the basic clock face, then rub out *only* the hands and draw them in different places so that each child gets a chance to tell a new time.

A TIP! When you draw a clock, start with 12, 6, 3 and 9. Fit the other numbers in between. Don't start at 1 and go on round or you will almost certainly end up with 13 hours!

Stage 1



Stage 2



b. School timetables

School timetables can be the basis for some useful maths work. They can provide the data for questions like these :

Level 2

1. At what time is Maths on Thursday?
2. How long is the Geography lesson on Tuesday?
3. How many times a week do we have English?

Level 3

1. How many minutes a week do we spend doing Maths?
2. How long is it from the end of break in the morning to the end of school in the afternoon?
3. If you arrived 5 minutes late for Assembly every morning, how many minutes would you spend in Assembly each week?

c. Bus and rail timetables

Older children should get practice in reading timetables for journeys and making the necessary mental calculations. Here is a sample exercise you could write on the board :

	Madras Exp	Charminar Exp	
Hyderabad	15:00	18:15	1.How long does it take to get from Secunderabad to Madras on the Madras Express?
Secunderabad	15:20	18:45	
Warangal	18:20	21:45	2.Is the Charminar Express quicker or slower?
Vijayawada	22:15	01:30	
Ongole	01:45	05:30	3.If you needed to be at a wedding in Ongole at 9 a.m. which train would you choose?
Nellore	02:30	06:45	
Gudur	04:05	08:45	4.If the Charminar was an hour and ten minutes late at Vijayawada and lost another 40 minutes between there and Madras, at what time would it arrive?
Madras	06:00	09:45	

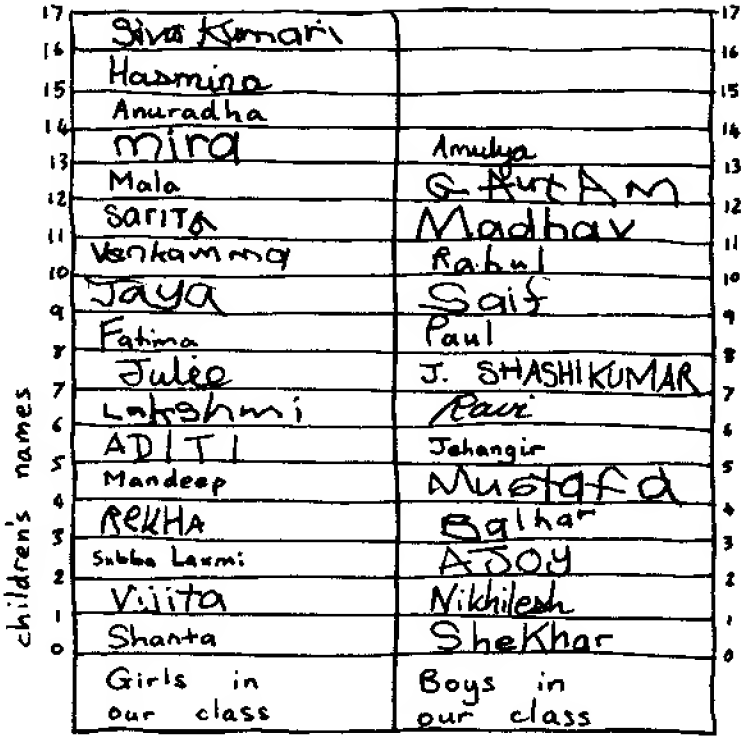
8. *Graph work*

Graphs are an excellent way of recording mathematical findings children have obtained for themselves. When these findings cannot come from a textbook, a framework needs to be given on the board.

a. **Block (or bar) graphs**

Level 1 **Girls and boys in our class**

It is often thought that graph-work is only suitable for older children. However, it can be a useful means of establishing a concept of quantity in young children even before their counting is secure. A graph of the boys and girls in the class helps to establish a correspondence between people and numbers. If each child is able to write his/her own name in each space, so much the better. A TIP : Draw the boxes first and start at the bottom.



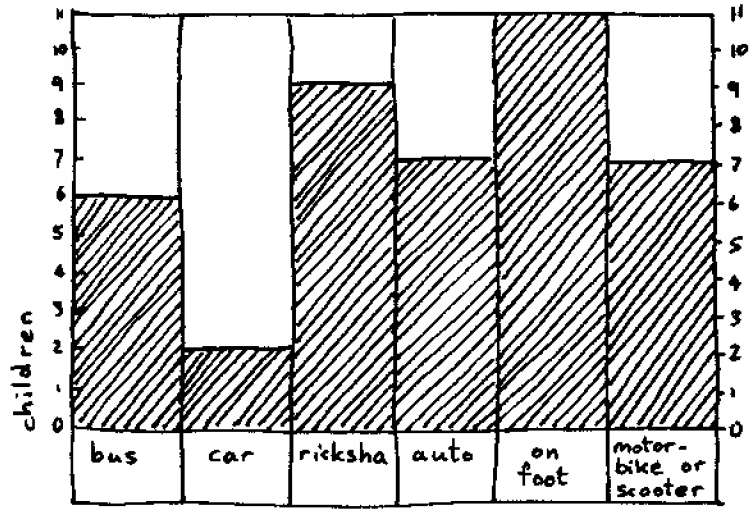
Level 2 **How we get to school**

Older children are able to cope with graphs in which their names do not appear. They are still however very much aware that they have collected the information themselves.

First collect the data on one side of the blackboard by asking all those who come by bus to raise their hands. Count them. Count the others by the same method and fill in a table like this :

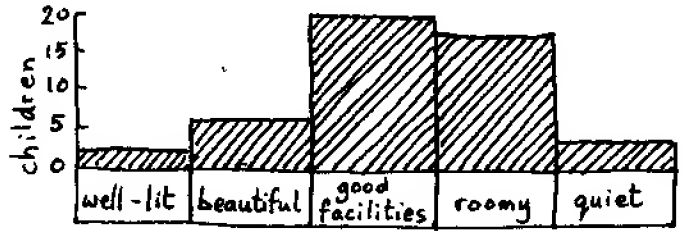
bus	6	auto	7
car	2	foot	11
ricksha	9	motorbike	7

Much useful language work on comparatives can be done with a graph like this (e.g. More children come by _____ than by _____ . As many children come by _____ as by _____. etc.)



Level 3 **Graphs about opinions**

Get the children to do a survey of their opinions—perhaps about a new school building plan. They could look at different aspects of the plan and make a graph according to their opinions of its different merits or disadvantages.

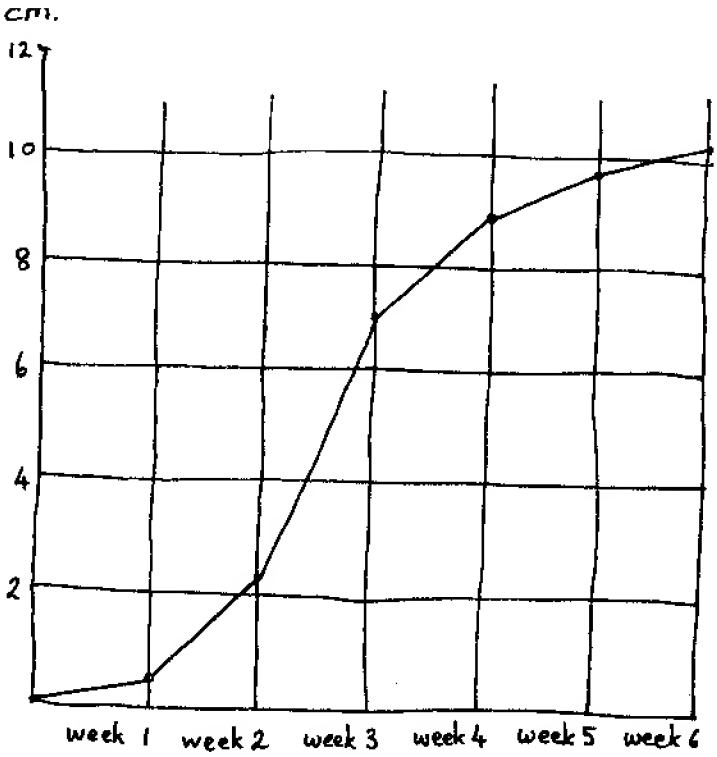


Graph work (continued)

b. Line graphs

Level 2 **Plant growth**

Line graphs usually show change over a period of time. The growth of a seedling is a good way to illustrate this. Plant a mustard seed or a channa seed in earth. See that it is in the sun and watered regularly. Get the children to record its height on the same day each week. After six weeks you might have a graph like this. (Unless you move your plant into a bigger pot, it will probably die after some weeks.) Rain and temperature graphs recorded daily over a period of two weeks can be useful line graphs too. (See page 114.)



c. Pie charts

Pie charts can be difficult to draw unless you work with even numbers. A 'natural' pie chart is the break-up of events in the day because it follows the pattern of a 24-hour clock. Remember to follow the pattern of writing 24, 12, 6, 18 first, then 3, 9, 15, 21. Finally fill in the other numbers. Teach the children how to do this on the board. Fill in one child's day as a sample. Let the others copy the pattern and complete their own pie charts according to their own daily habits.

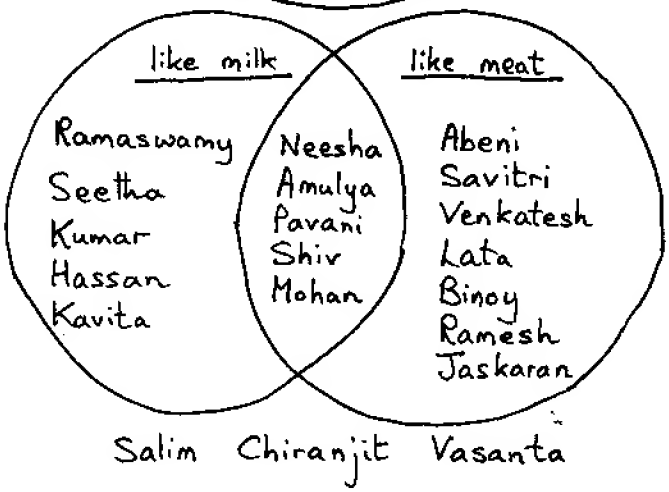
d. Venn diagrams

Venn diagrams help to establish the important concept that some things can belong to two or more sets at once. Again, using data from your own class, you can build up Venn diagrams on the board like this one.

This can also be useful in language work in order to teach the structures.

Neesha likes both _____ and _____.

Salim likes neither _____ nor _____.



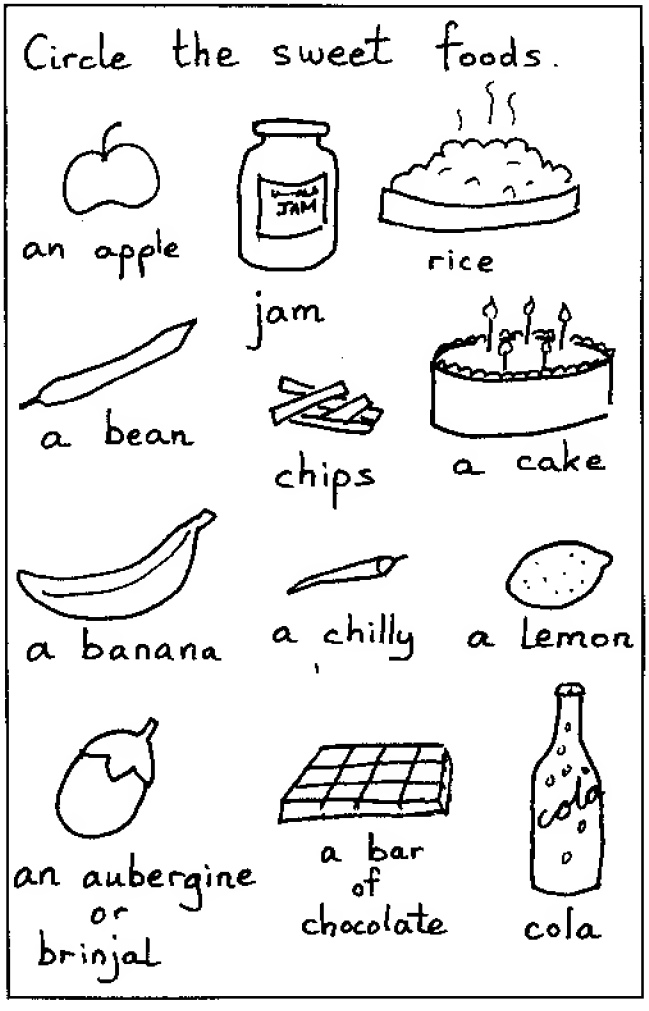
SCIENCE

Nowadays it is generally agreed that the *way* children learn science is as important as the *facts* they learn. Wherever possible, children should do experiments for themselves, first predicting what they guess the outcome will be, then – after the experiment – analysing the result. Costly equipment is rarely necessary at the primary and even lower secondary levels. It can be improvised according to local conditions. However, as situations vary, you will need the flexibility of the blackboard to help you give written tasks and demonstrate how experiments can be done. It should be stressed that the blackboard should never be used *instead* of an experiment. Use it to guide the children how to do an experiment or to record the results. The blackboard is no substitute for experience.

1. *Pre-primary science*

Scientific experimentation starts the moment we are born. Babies are great discoverers and naturally try out new ideas to see if they will work—whether they try to get the cap off a bottle or to see what happens if they put their fingers in a plug! No one is too young to learn science. Here are a few ideas for science teaching from the blackboard. The experience comes *first*. The blackboard is used to record the experience in pictorial form.

a. **The tasting experiment—classifying**
Bring into school a number of different types of food—just a taste or a tiny piece of each. Keep them in a covered bag or box. Call different children to the front, put your hands over their eyes and ask them to eat one of the samples of food. Is it spicy, sweet, salty, sour or bitter? Can they guess what it is?

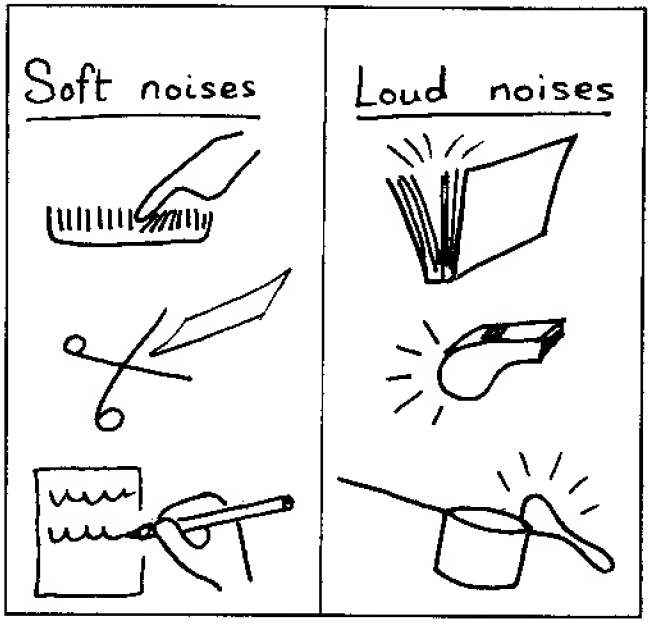


When several children have had a chance to guess, draw simple pictures of each food on the board. (There are more pictures of food on pages 50-53). There is no need to label the foods if the children cannot read. They will remember what each picture represents if you discuss each one. Ask them to copy the pictures onto their slates or in their books. Then they should circle all the sweet foods. Alternatively, they could circle the foods they like best. In this way they are learning to make intelligent choices on paper—even before they can write.

b. **The sound experiment—sorting**
This can be conducted like the tasting experiment. Bring in a number of objects that can make sounds. Blindfold different children in turn and ask them to guess what is making the sound. You could for example :

run your nail along a comb,
clap a book shut,
snip paper with scissors,
blow a whistle,
bang a spoon on a pan,
write on a piece of paper.

After several children have had a turn, draw two columns on the board and ask the children to tell you which noises to draw in the 'soft' column, which in the 'loud' column. There may be differences of opinion on this. Encourage children to take different viewpoints. All scientists should think independently!



c. **Sinking and floating—the scientific process**
This is an experiment you can conduct anywhere you have water—and you just need enough to fill a few glass jars. Get the children into groups of four or five. Give each group a jar of water and a few bits and pieces to test. Vegetables and fruits are good because you can cut them into small pieces and it isn't easy to guess whether they will sink or float. Talk about the items to be tested first—what they are and what they are used for. Then put a table like this on the board :

Ask those who think the shell will float to raise their hands. Write the number beside F. Count those who think it will sink and write the number beside S. Do the same for the other items. Encourage children to question you. For example, it may make a difference if they lay the shell flat on the water.

	guess		result
shell	F (16)	S (14)	F (but it depends how you put it in)
match	F (28)	S (2)	F
tomato	F (22)	S (8)	S
rubber band	F (18)	S (12)	S (floated first, then sank)
lady's finger	F (21)	S (9)	F
potato	F (3)	S (27)	S

N.B. : It is worth pointing out that the majority often guess wrong as they did here with the tomato and rubber band.

Let the children do the experiment themselves. The result may be unpredictable. Some tomatoes and rubber bands sink, some float. Encourage the children to discuss why this might be. There are often no right answers in science.

RECORDING

Non-readers

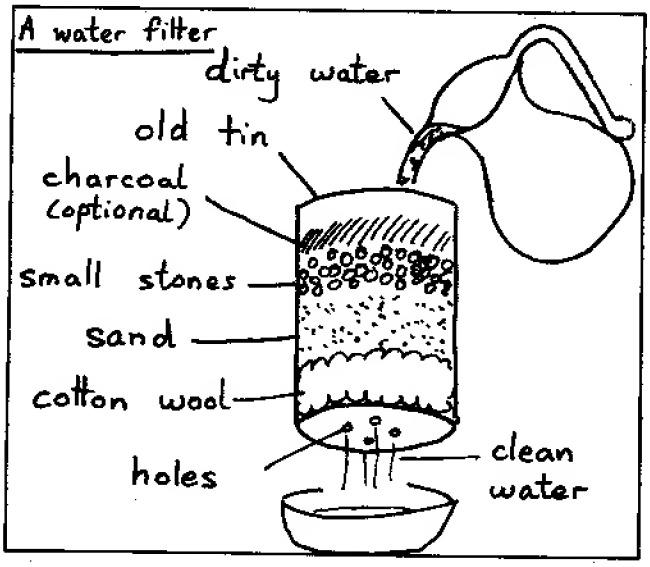
Children who can write

The	shell match tomato rubber band lady's finger potato	sank. floated.

2. *Primary science* (water)

It would be impossible to write about all the simple experiments which can be initiated by the blackboard. A sample of a few is given here—with simple language exercises for the first in each section. Children with a good command of English should be able to write up their own experiments if you put an introductory drawing on the board.
A TIP : *Always* try out an experiment at home before you get children to do it in class.

a. **WATER**



Making a water filter
Draw this diagram on the board. Mix some mud and water. Get some old milk tins, punch a few holes in the bottom with a nail and get the children to make water filters as shown in the picture. You could devise different language exercises according to the level of your pupils. For example,

Level 1

This is a _____ _____.
We put in _____ water.
_____ water came out.

Level 2

First we made holes in the [top / bottom / side] of a [bag. / jug. / tin.] We used a [pin. / nail. / pencil.] First we put in [cotton wool. / stones. / sand.]

Then we put in [cotton wool / stones / sand] and on top of that we put [cotton wool. / stones. / sand.]

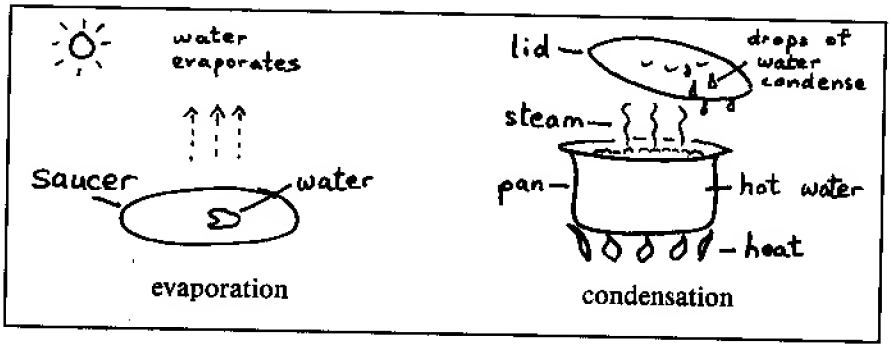
Last of all we put in [charcoal. / holes. / tin.] We poured [clean / drinking / dirty] water into the water filter.

It came out through the [door / holes / window] at the bottom of the tin. It was [clean. / dirty.]

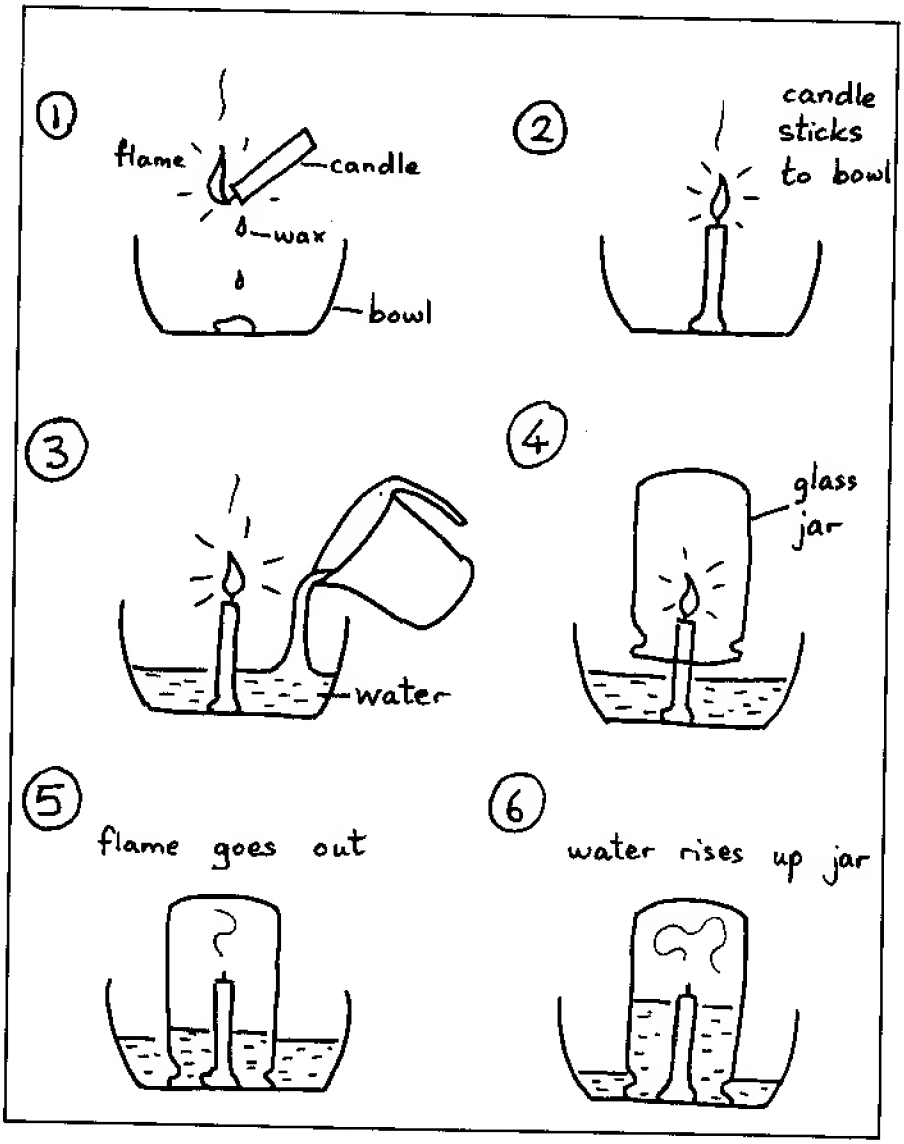
Level 3

Ask the children to test different kinds of dirty water. Will the filter remove soap, sand, sugar, chalk, ink from water? Get them to make solutions with each substance and see what happens. It is important that the children realise that some chemicals and detergents cannot be filtered out of water.

Evaporation and condensation
Put some water in a saucer. Leave it for a few hours until it evaporates. Heat a pan of water (perhaps in the school kitchen or staff room). Show the children the drops of condensation on the lid. Devise language exercises appropriate to the level of your pupils.



b. **AIR : Air takes up space**
In this experiment, a series of pictures shows the sequence of events. Describe what you are going to do and ask the children to guess what will happen. Before you draw the pictures, get the children to do the experiment. Draw the pictures afterwards – as a record – or you will spoil the surprise when the water rises up the jar.



Level 1
The drawings are a sufficient record.

Level 2
The children can answer questions like these :

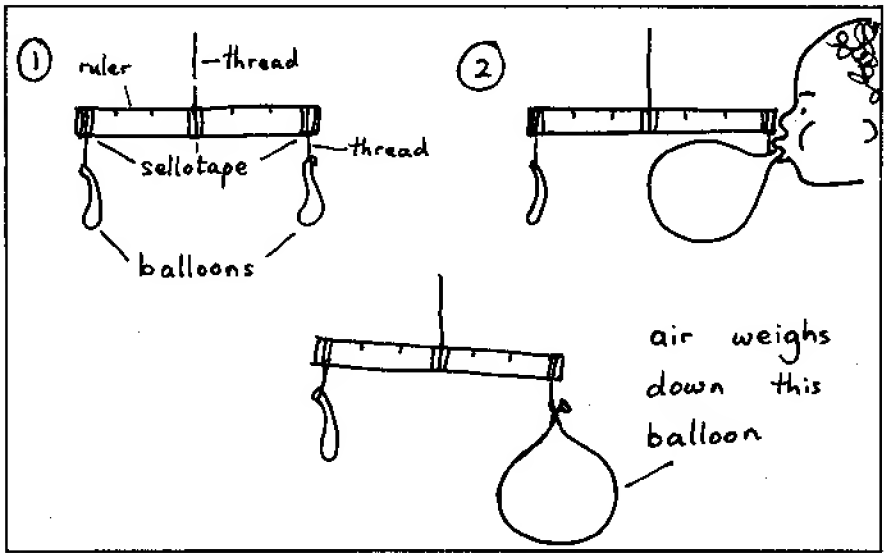
1. What materials did we use for the experiment?
2. How did we stick the candle to the bowl?
3. What did we pour into the bowl?
4. What did we put over the candle?
5. a. What happened to the candle flame?
   b. Why did it go out? (The candle flame consumed some of the air.)
6. a. What happened when the flame went out?
   b. Why did the water rise up the jar?
   (The water took the place of the air which the flame had consumed.)

Level 3
The children write about the experiment under the following paragraph headings : *Hypothesis* (what I thought would happen), *Materials, The Experiment* (what we used and what happened), *Analysis* (why I think it happened this way).

Air has weight

Get the children to work in pairs. Draw the first two diagrams on the board. Ask the children to guess whether the balance will tip or not if one of the balloons is blown up.

They should work with 30 cm rulers. The thread can be attached with cellotape. It should be adjusted so that both balloons balance each other exactly. The weight of air is not great, so the experiment will need to be done carefully if it is to show clearly that air has weight. Devise a suitable language exercise to go with it.

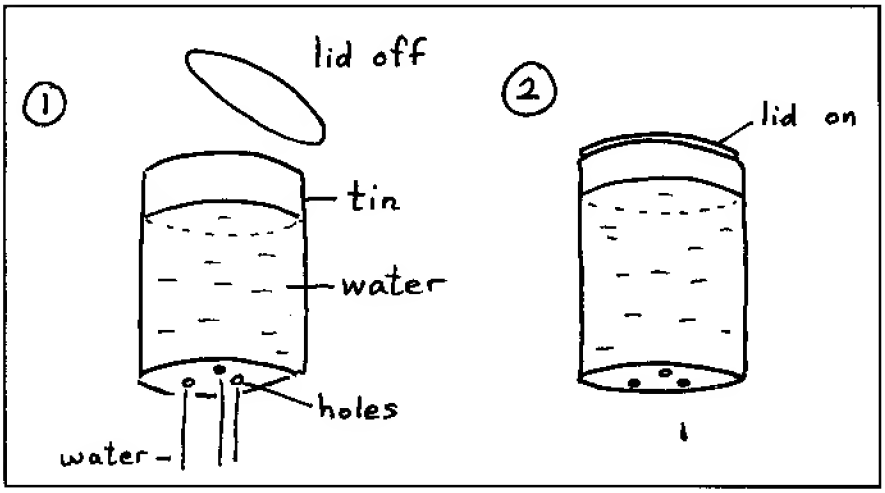


Air has pressure

Find some milk tins with tightly fitting lids. Punch a hole or two in the bottom with a nail. When you pour water in, it will run out of the bottom. However, when you put on the lid, the water stops coming out of the bottom. This is because air is pressing up from below, and not down from above.

The experiment can be recorded as shown at Level 1. At Levels 2 and 3 you should devise a suitable language exercise to record what happened.

Note : Check that the lid is completely airtight before you do the experiment.

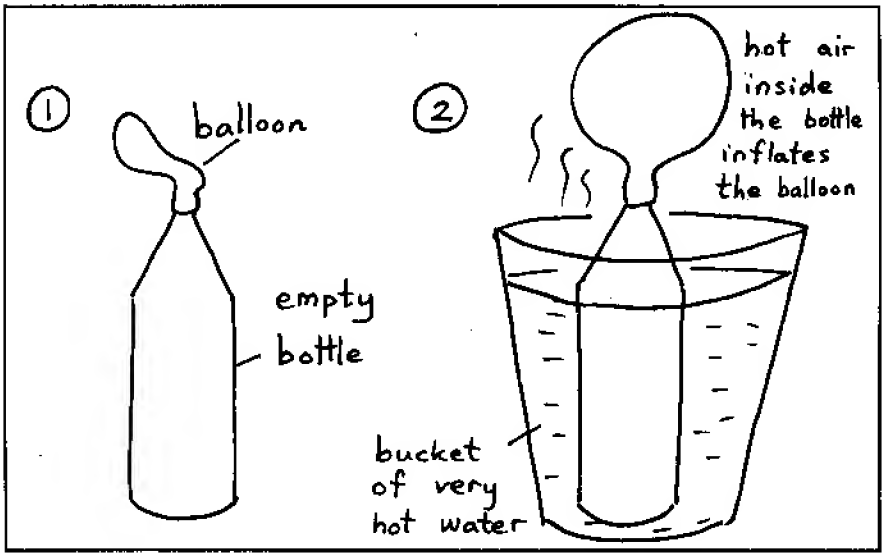


Air can expand

Draw diagram No 1 on the board and ask the children to guess what might happen if you plunge the bottle into very hot water.

You will have to do this experiment yourself as hot water is dangerous! If possible, use a plastic bucket as a metal bucket absorbs a lot of heat. The water should not be completely boiling or it will crack the bottle. Plastic bottles are safer than glass. The balloon should inflate because the hot air in the bottle has expanded.

Devise suitable language work.



c. **LIGHT**

Making a colour wheel

Level 1

It will be enough to give oral instructions and draw the two diagrams on the board. Remember, of course, to get the children to guess what will happen before they do the experiment.

Levels 2 and 3

Use this as an opportunity to get your pupils to follow *written* instructions. Write the instructions on the board before the lesson. Have all the materials ready but try not to talk too much. The card can be obtained without cost from boxes or food packets. If you plan this experiment in advance, you can collect old pencil stubs before they are thrown away. They should be well sharpened. Short wax crayons will do just as well.

If possible, get every child to make a colour wheel. The spinning action of the top should turn the colours into white or whitish-grey. If you leave the instructions on the board, they can be changed into the past tense when your pupils write up the experiment.

Level 3

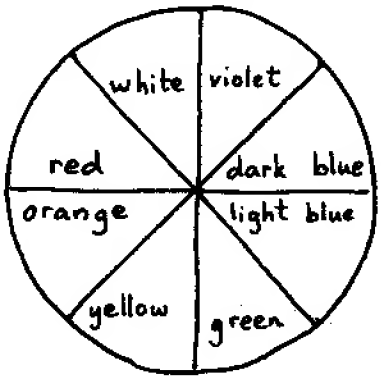
Further tasks can be set at Level 3. Ask the children to see what happens if a) they make a colour wheel of a different size, b) if they just use red and yellow c) if they divide the circle into seven equal segments (with the help of a protractor) and leave out white d) if they use a *long* pencil in the top.

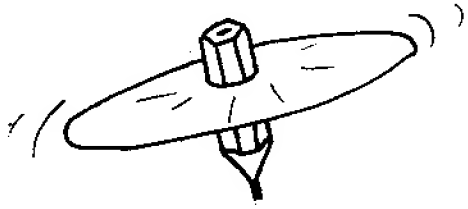
How to make a colour wheel

Materials : a piece of card at least 6cm by 6cm, a piece of white paper of the same size, a compass or round shape (e.g. a cup), scissors, boiled rice or gum, colours, an old pencil stub or wax crayon.

What to do

1. Use your compass or trace around a round shape to make a circle at least 6cm in diameter on the card.
2. Draw a circle of the same size on the white paper.
3. Cut both out.
4. Fold the paper circle into half, then into a quarter, then into an eighth. Open it. You should have eight equal segments.
5. Colour them as shown in the diagram.
6. Stick the paper to the card with boiled rice or gum.
7. Push a short pencil or crayon through the middle. You have made a top.
8. Spin it. What happens to the colours?

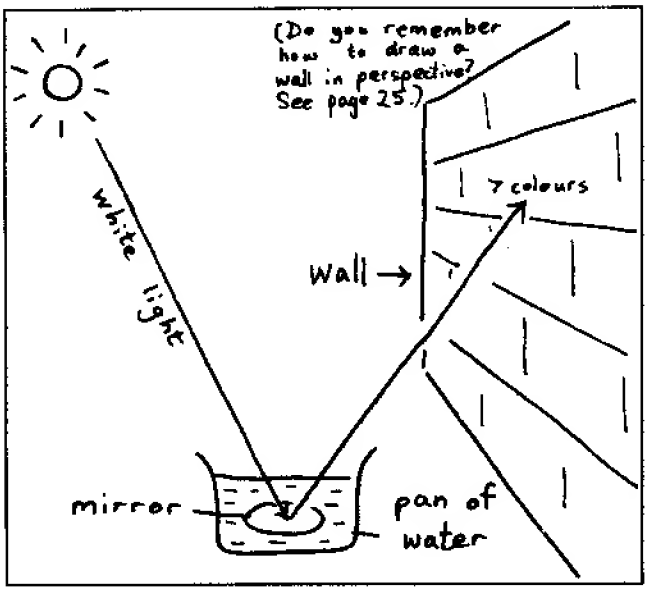




Primary science (light, heat)

Making a rainbow

In this experiment, you turn white light into colours (to contrast with turning colours into white light as you did with the colour wheel). If possible, ask each child to bring a deep pan and a small handmirror to school. If not, bring these yourself and give as many children as possible a turn. Take the children into bright sunlight. If the sun shines onto a mirror under water, it is refracted into the colours of the rainbow. It takes a little practice, so keep moving the mirror. This is obviously not an experiment to be done on a cloudy day! Draw this diagram on the board and devise suitable language exercises.



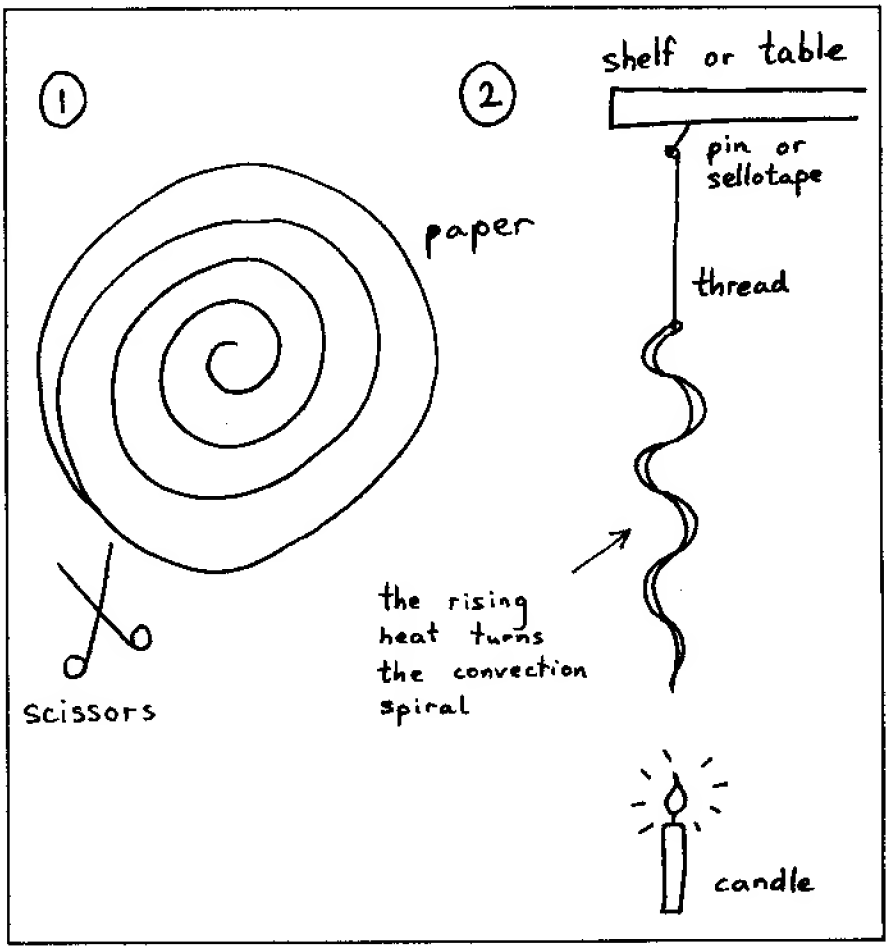
d. **HEAT**

Making a convection spiral

This very simple experiment shows how heat rises in convection currents.

Level 1

An oral explanation is sufficient. The children can copy the diagram. Put the labels in a jumbled order at the bottom of the board. The children match them to the correct objects.



Level 2

lit	stuck	put	threaded
rose	cut	tied	turned	stuck

We _____ a spiral out of paper. We _____ a piece of thread through the middle. We _____ a knot at one end of the thread. We _____ the other end of the thread to the table. We _____ the candle and _____ it under the spiral. The heat _____. The spiral _____.

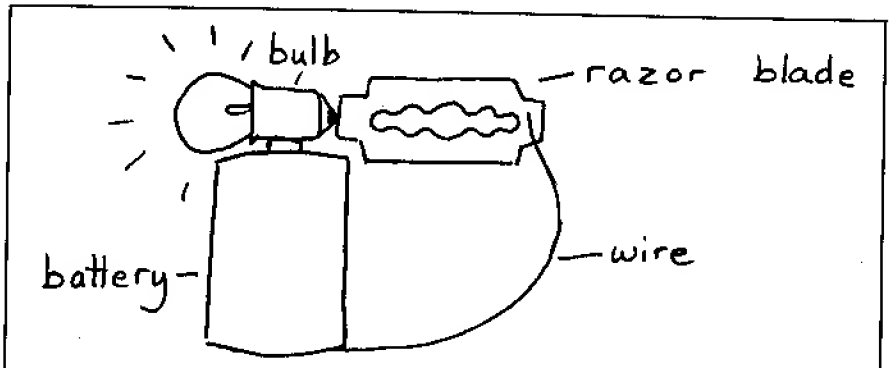
Level 3

The children could also watch the effect of convection currents in water. A few scraps of paper in a pan on a stove show the movement of water. They can write about both experiments in their own words.

e. **ELECTRICITY**

What conducts electricity?

Before you do this experiment, get the children to make simple circuits. It is enough to get some wire, a battery cell, a razor blade and a torch bulb. You can light up the bulb if you hold it at the top of the battery cell like this :



If the children work in pairs, one of them can hold the item to be tested so that it touches the base of the bulb and the wire. Be sure that they record their guesses before they do the experiment.

N.B. Pre-literate children can just draw the pictures and complete the table.

You could also try silver foil (from a cigarette packet), pencil lead and a drawing pin.

Will it conduct electricity?	guess	result
a razor blade	✓	✓
a ten paise coin	×	✓
a magnet	✓	×
a stone	✓	×
a silver ear-ring	✓	✓
a wet match	✓	×
a rubber	×	×

Level 1

The children can label the diagram and complete the table, first with their guesses, then – after the experiment – with their results.

Level 2

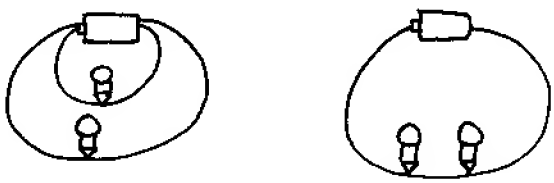
After your pupils have copied the table from the board and completed their guesses, they can do the experiment. They can write up their results according to this pattern :

I guessed that the _____ [would / wouldn't] conduct electricity.

It [did / didn't], so I was [right. / wrong.]

Level 3

Make it clear to the children that it is not that some materials do and some don't conduct electricity. There are better and worse conductors. Though wet things do conduct electricity, the voltage of a battery isn't strong enough to light up the bulb through a wet match. As a follow-up, get your pupils to experiment with parallel and series connections. Draw two diagrams like these. Ask the children to wire them up and find out what happens. (The lights in the series connection are weaker than in the parallel connection because they share the same amount of electricity.) Ask your pupils to write about their findings.



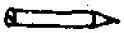
parallel connection series connection

f. MAGNETISM

This is an enjoyable experiment if you are able to get hold of some magnets (of varying sizes for Level 3).

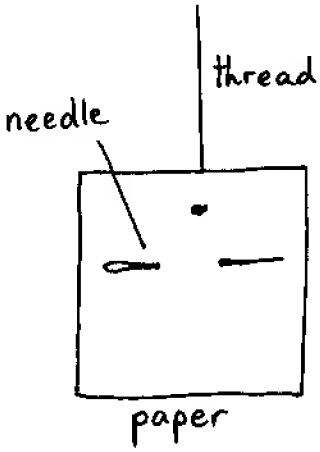
Level 1

It is enough if children at this level predict which materials will be attracted by a magnet and record their results. They can copy a table like this from the board : It is fun to do this after the experiment on conductors of electricity. The results are not all the same!

Will it be magnetised?	guess	result
 a stone	Yes	No
 a ten paise coin		
 silver foil (from a cigarette packet)		
 a shell		
 lead in a pencil		
 a nail		
 a silver earring		

Level 2

Ask some children to stroke a needle with a magnet (in one direction only) a hundred times. The needle should become magnetised. If it is pushed through a piece of paper the size of a postage stamp and suspended by a thread, it should point north-south. You could ask your pupils to write these sentences in the correct order. (Of course you will *not* write the numbers!)



3. We pushed the needle through a small piece of paper.
5. We held the thread till it stopped turning.
1. We stroked a needle with a magnet a hundred times.
6. The needle was pointing north-south.
2. The needle became a magnet.
7. This is because all magnets point roughly to the North Pole.
4. We hung the paper on a thread so that the needle was horizontal.

Level 3

The children can devise a *fair test* to see which magnets are most powerful. Collect some magnets of varying size and shape. Give each group a magnet and see how many paper clips they can attach to it. If this is to be a *fair test* of each magnet, they should agree on a standard way of conducting the experiment. For example, they should agree that only one paper clip is allowed to touch the magnet, but several paper clips can be attached to that paper clip. Draw the different solutions on the board, so that each group can learn from what the others have found out. Discuss the *variables* in the experiment (size, shape, age of magnets, way of hanging the paper clips). Ask the children to write full answers to questions like these :

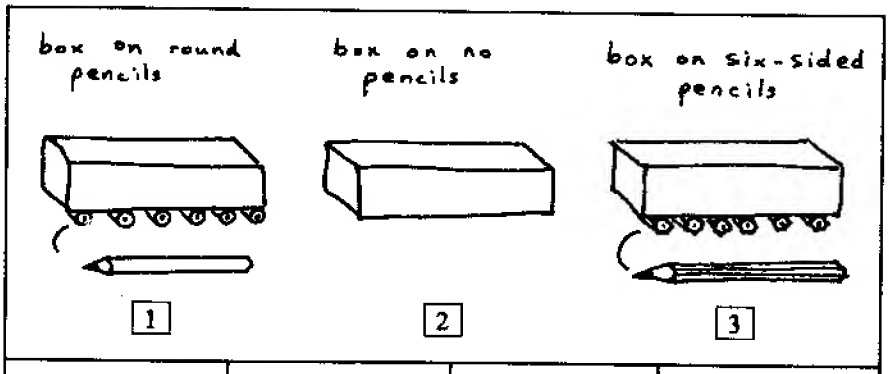
1. How did we test which of our magnets was most powerful?
2. What were the variables in our experiment? How did they affect the result?
3. Which was the best way of hanging the paper clips?
   a)  b)  c)  d) 
4. Is the test fair if the magnets are of different
   a) size b) shape c) age

g. WHEELS, PULLEYS AND LEVERS

Level 1

Draw diagrams like these on the board and write up the table. Ask groups of children to test which box moves fastest—the one on round pencils, the one on six or eight-sided pencils or the one on no pencils at all. The children record their guesses *before* the experiment and write what happened after it.

It is important that they should see that the experiment is a *fair test*. For example, the push should be the same each time. The weight and size of each box should be the same. The floor surface should be the same.

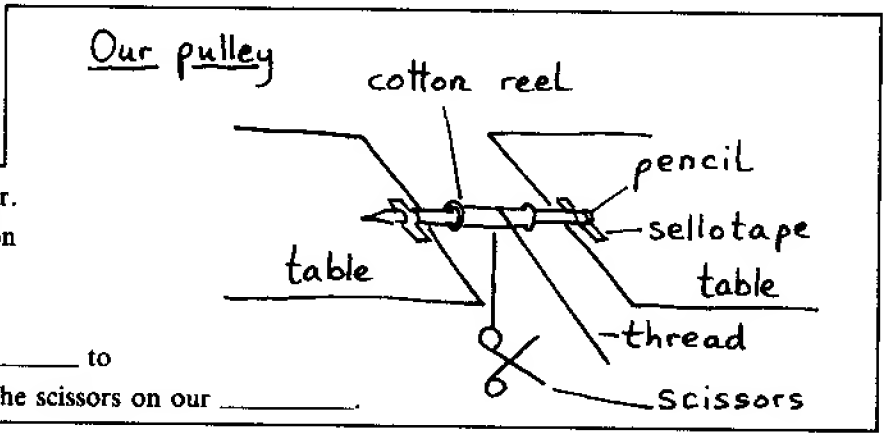


I think	Box 1 Box 2 Box 3	will go	fastest. slowest.
Box 1 Box 2 Box 3	went	fastest. slowest.	

Level 2

In this exercise, the children can use the words in the diagram to complete a record of their experiment.

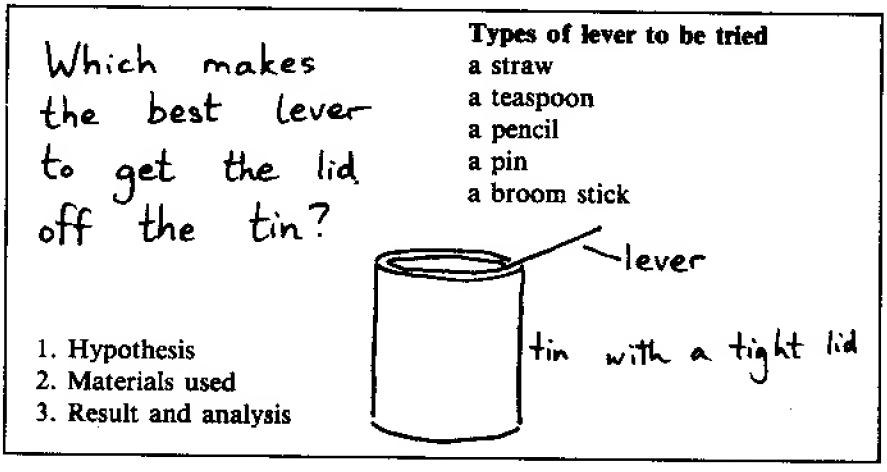
We put two _____s close together. We put an old _____ _____ on a long _____. We stuck the ends of the pencil to the two tables with _____. We tied a pair of _____ to a piece of _____. We pulled up the scissors on our _____.



Level 3

Give different groups in the class the materials you have listed on the board. Get them to discuss what makes a good lever of this kind. For example, the straw may be too bendy, the broom stick too brittle, the pin too short, the pencil too thick. Get them to write up the experiment in three paragraphs under the headings shown. Do not discuss other types of lever yet as the children may be confused by them.

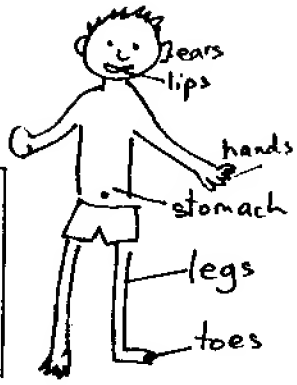
N.B. There is an experiment with ball bearings on page 69.



Primary science (the human body)

h. THE HUMAN BODY

Facts about the human body are better learned from a textbook than from the board. Diagrams done by professional artists are likely to be more accurate than those we teachers can draw hastily on the board. There are however a number of surveys children can do of the ways their own bodies work. The blackboard can be used to help children record their findings.



Level 1

I can feel	bones no bones	in my	ears. legs. hands. lips. toes. stomach.

Level 2

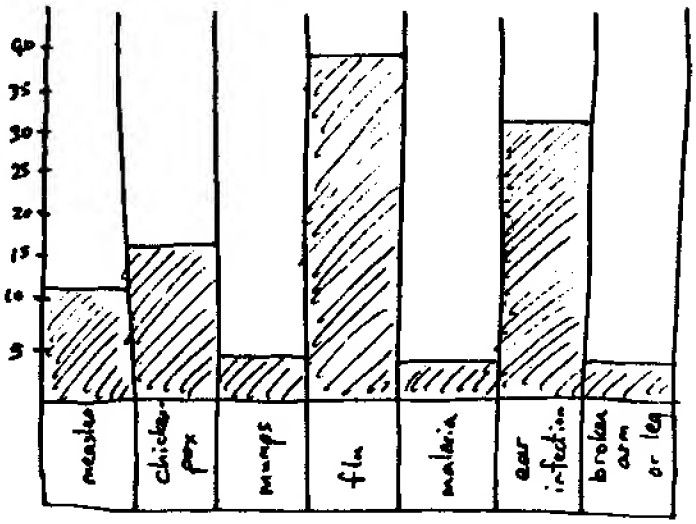
Before you do a survey like this, check that you have a clock with a second hand, a ruler, a tape-measure and a weighing machine. Leave out weight if you can't get a machine. Get the children to copy this form from the board and complete it about themselves.

Facts about me

Number of breaths in one minute : _____
Number of breaths in one minute after jumping 100 times : _____
Number of cuts or grazes on my body today : _____
Number of bruises on my body today : _____
My foot-length : _____
My hand-span : _____
My height : _____
My weight : _____
My age : _____

Level 3

Do a class survey of the illnesses and injuries the children have had. For example, ask the children who have had measles to put up their hands. Count them and fill in the block graph. Do the same for the other illnesses listed. It might look like this :



After you have finished the graph, ask the children to analyse the results. For example, more people have had chicken pox than measles. Malaria is not common is our area.

N.B. You may wish to get the children to copy the list and ask their parents before you complete the graph.

Primary science (plants and animals)

i. PLANTS AND ANIMALS

As with the human body, these subjects are probably best taught with the aid of a well-illustrated textbook. Simple illustrations of plants and animals are shown on pages 41-49. A number of simple exercises are also suggested. You may wish to do some survey work of the plant and animal life around your school. Here are a few ideas for blackboard-initiated work.

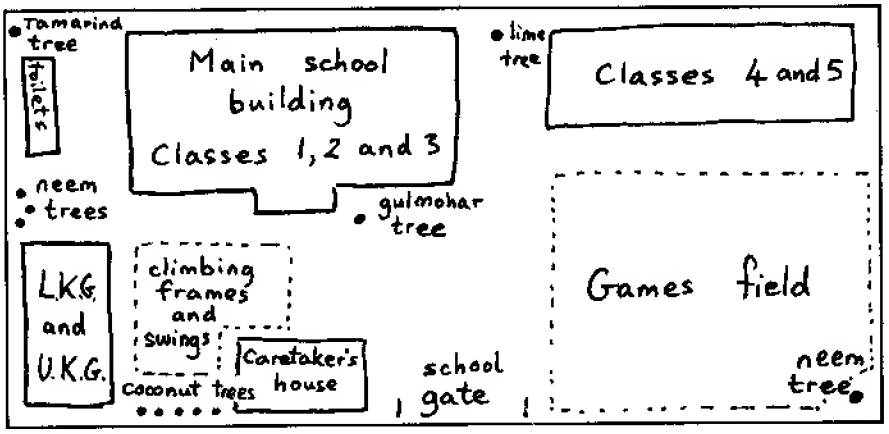
Level 1

Small children can do a simple survey of the animal life in the school grounds. When they return to class, they can write simple sentences according to this pattern :

We	saw didn't see	 butterflies.  bees.  snails.  dogs.  birds.

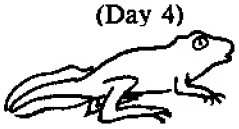
Level 2

Draw a simple map of your school grounds on the board. Get the children to copy it. Go outside with them and help them to place the different trees in the compound on their maps. For example :

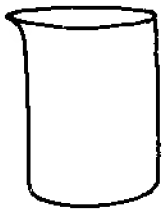
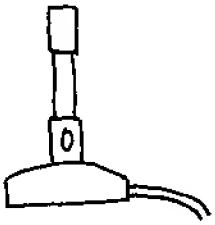
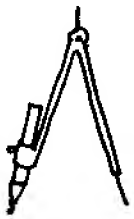
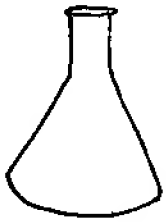
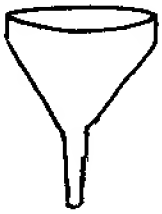
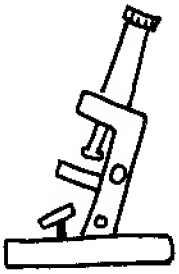
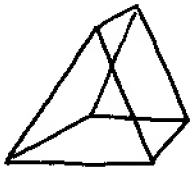
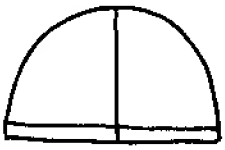
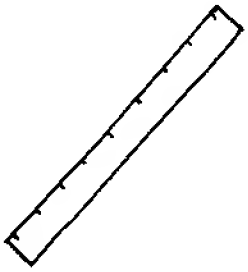
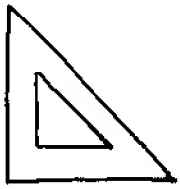
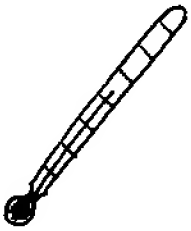
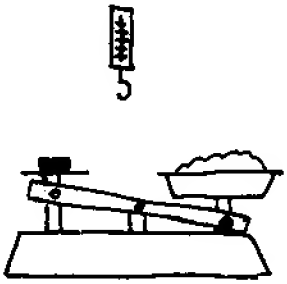


Level 3

Plant growth graphs like that on page 94 can be a useful basis for learning about plants. Surveys of animal habitats like that on page 71 are also useful. Sometimes we need to make a record of an ongoing experiment in the classroom. For those children who find it hard to draw from life, the record of a tadpole's growth may be best copied from the board. Appropriate captions can be added. Make sure they are truthful — if your tadpoles die, say so!

1 Week 1  We put some frogspawn in water	2 Week 2  Some tadpoles have hatched.	3 Week 3  You can see the eyes. The tail is thicker now.
Week 4 (Day 1)  One tadpole has back legs.	Week 4 (Day 4)  It is bigger. Now it has front legs.	Week 4 (Day 5) Oh dear ! Our tadpole is dead.

Primary science (mathematical, scientific equipment)

a beaker 	**a bunsen burner** 	**compass** 	**a flask** 
a funnel 	**a magnet** 	**a microscope** 	**a pipette** 
a prism 	**a protractor** 	**a ruler** 	**a set square** 
a test tube 	**a thermometer** 	**a tripod** 	**weighing machines** 

Level 3

These pictures are likely to be useful only to secondary school science teachers and can be used according to their needs. The methodology of secondary science teaching is beyond the scope of this book.

GEOGRAPHY

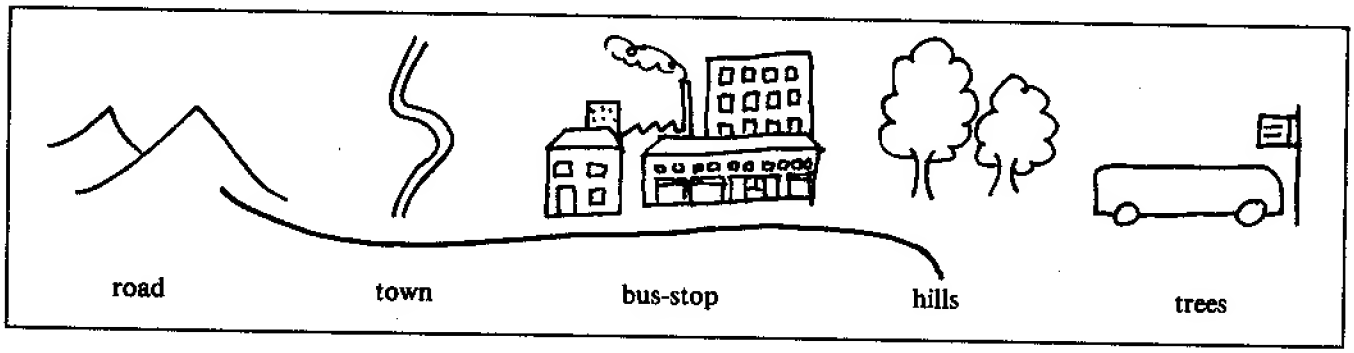
The topics suggested in the first part of this book can all be useful for social studies teaching. This section looks more specifically at geography skills which can be taught with the help of the blackboard.
As in the other subject areas covered, the emphasis is on ways of using the children's immediate environment since this is too specific to be found in general purpose textbooks. There are also some generally useful pictures which can be used to illustrate key concepts.

1. *Mapwork skills*

a. Recognising symbols

Level 1

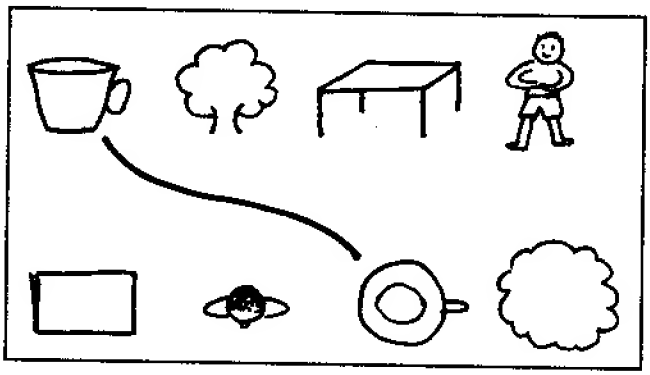
The first stage in mapwork is the understanding of symbols. Much of the work suggested for pre-literacy (pages 54-58) prepares children for this. Young children can be taught to read the symbols on a map by simple exercises like this matching task :



b. Looking down at things

Level 1

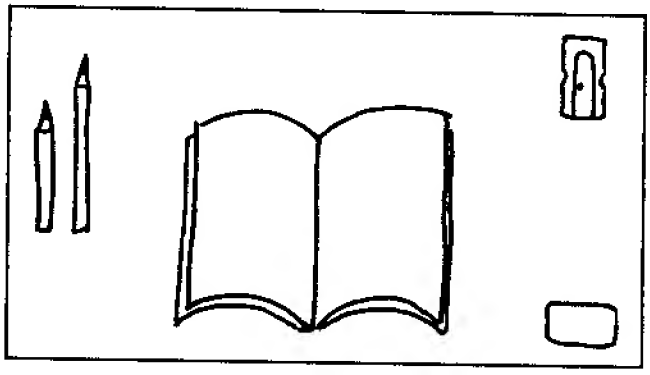
It is not easy for young children to understand the difference between a picture and a map. One way to help them relate the two is to give them a matching exercise of things seen from above and from the side.



c. Mapping a table

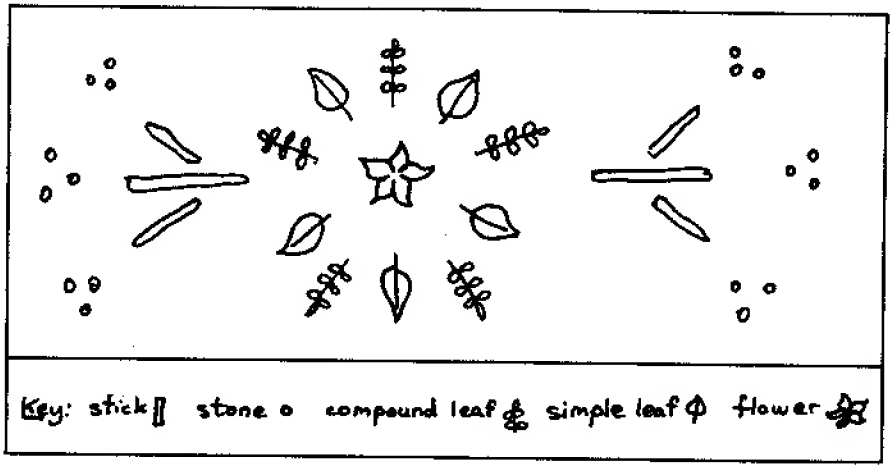
Level 1

Unless your school is ten floors up, your children won't be able to look down on an area to see what a map means. They can, however, look down on their tables. Draw a map of a table like this on the board. Ask the children to work in pairs and place some pencils, a book, a rubber and a sharpener in the same positions. The children who succeed can put the things in different positions and map their own tables in their exercise books or on their slates.



d. **Mapping a pattern**

Children love making patterns with things. If you have plenty of trees in your playground, sticks, leaves, flowers and stones can be collected. The children can work in groups of four or five to make patterns on the floor. When they have finished, they can look down at their patterns and map them. Draw *one* of the patterns on the board as an example.

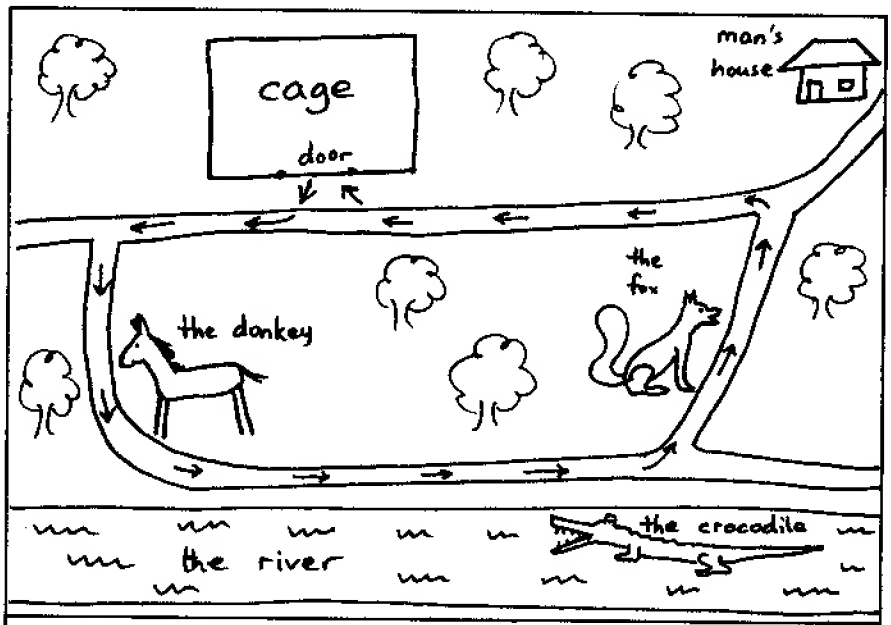


e. **Mapping a story**

Level 1

Many stories involve a journey from one place to another or are set in a place which can be usefully mapped. A map of a story is a good way of introducing the idea of a map of an unknown place. For example, here is a map of the folk story, *The Man and the Tiger.*

(A man foolishly lets a tiger out of a cage. The tiger agrees not to eat him if one of three judges supports the man. They walk through the jungle. A donkey and then a crocodile support the tiger. Lastly, they meet a fox which takes them back to the cage and tricks the tiger into going back into it.) This work can be a useful way of preparing children to map real journeys, such as the route taken on a school trip.

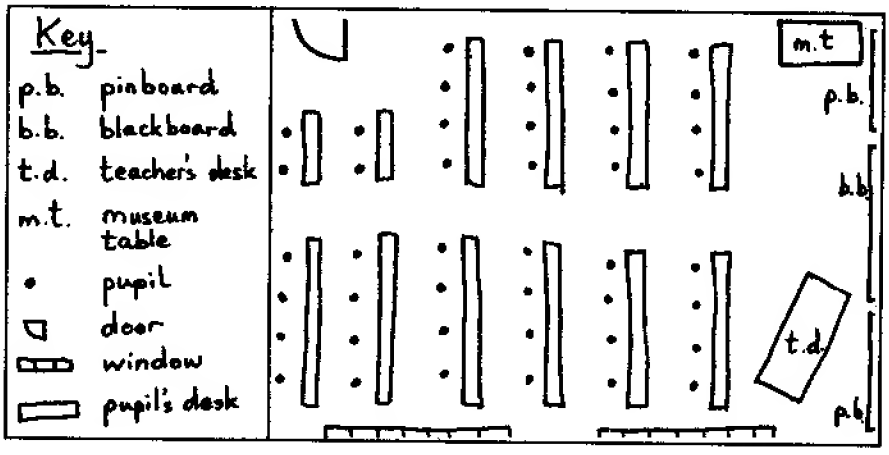


The route taken by the man and the tiger

f. **Mapping the classroom**

Level 2

All the children can see the classroom so it is a good first map. Make a plan of it like this on the board. Do it with the children. Ask them to tell you where to put each item, to count the number of seats, to give you an idea of the approximate size of each part of the room. At Level 3, children can measure the room and do a scale plan. (See page 112)

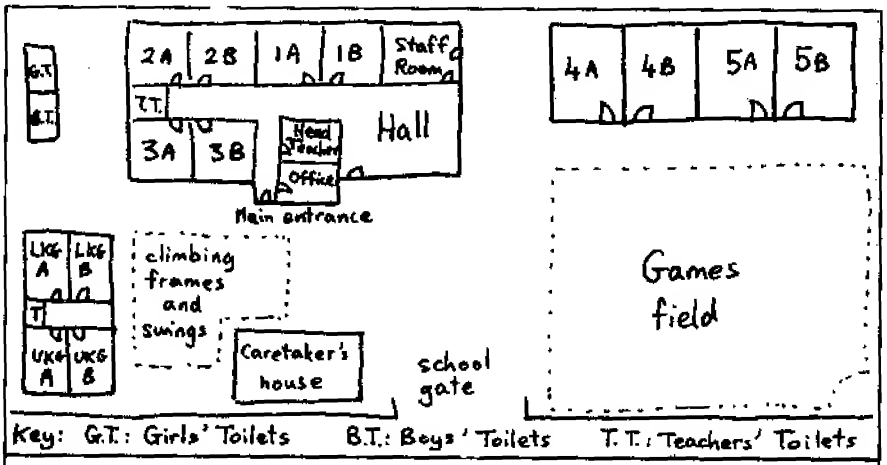


g. **Mapping the school**

Level 2

Once children are able to map a relatively small area like a classroom, they are ready to cope with a larger area which cannot all be seen at once. This is difficult and it would be unrealistic to expect most children to do it without help. You may wish to draw a map of your school grounds on the board and ask the children to fill it in or add to it. On page 106 there is an example of a school map focusing on trees. You might wish to show where different kinds of animal life were found; this would be a useful addition to the survey suggested on page 71.

Here is a map of the same school shown on page 106 though it shows the position of each class, not trees. Several maps of the same place but with different details help children to see that maps can be used for many different purposes.



Children can learn to describe routes with a map like this. Write up some sentence patterns the children can use.

How would you go from
a. LKG to the Staff Room?
b. 2A to the Games field?
c. 5A to 3B
d. the Hall to UKG?

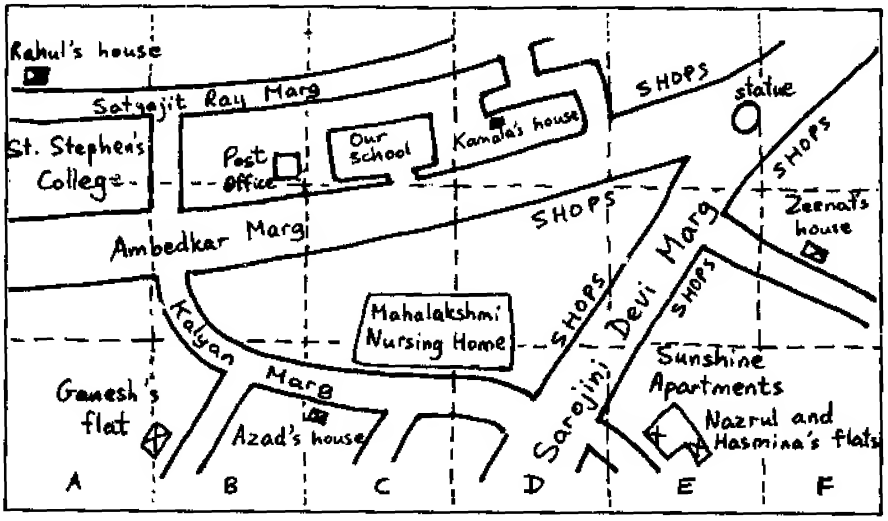
You would	turn	left right	(past ....)
	go past .... on your		right. left.
	go across the		

N.B. For a map of a house, see page 30.

h. **Mapping the area near the school**

Levels 2 and 3

Again, it is important that at this stage, mapwork should deal with familiar places. The area around your school can be drawn on the board. Different children can be asked to come up and place local landmarks like statues and hospitals. They can also plot their own homes if they live nearby. Each child can be asked to describe his/her own route to school every day.



N.B. If you are teaching coordinates draw a simple grid over the map as shown. If possible, use coloured chalk for the grid. Then get the children to make sentences e.g. The Post Office is in B3.

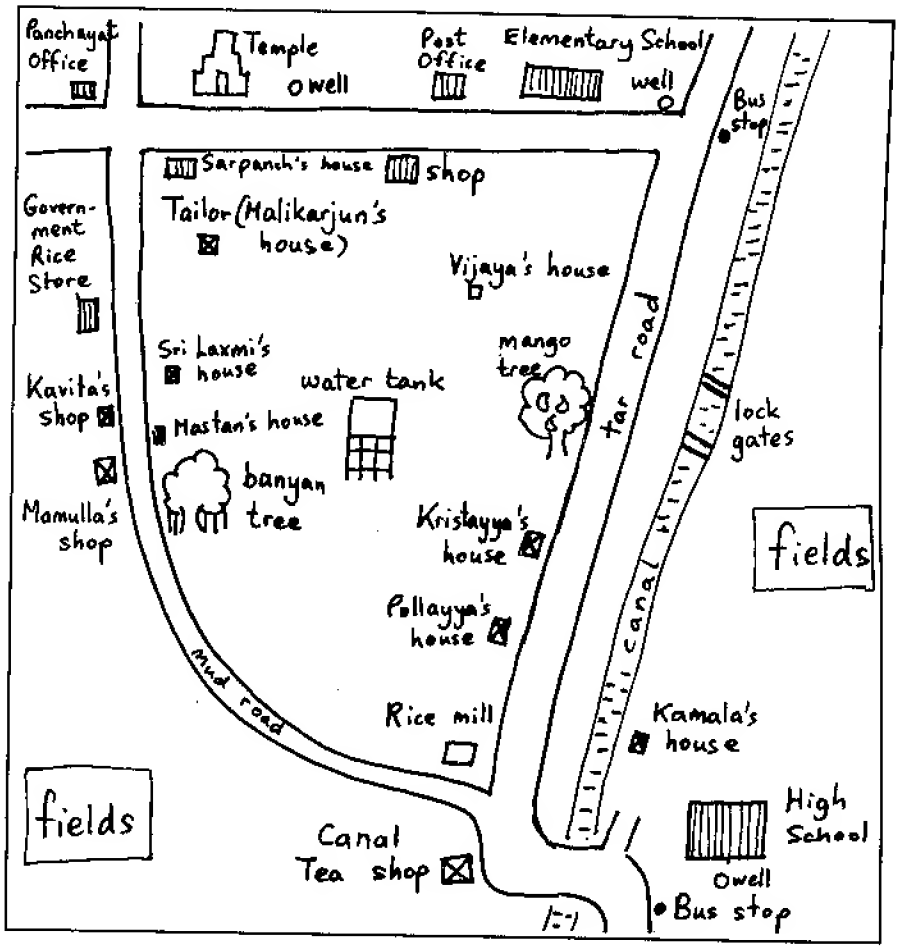
i. **Mapping a village**

Levels 2 & 3

From a mapping point of view, you are fortunate if you live in a village. It is a small area, familiar to all your pupils. Children in city schools usually travel long distances and the whole town cannot be known to all of them. Most rural children know the layout of their own village.

A map of a village will have different features from that of a town. Focus points may be trees under which people gather, wells or water tanks, bus stops and tea shops.

As a teacher you will need to draw the basic framework of the map on the board. Different children can come up and put in the features they consider important. Don't worry if a few details are not accurate. It will be good mapwork practice for the children to point them out! You may wish to use a compass to establish where north, south, west and east lie.

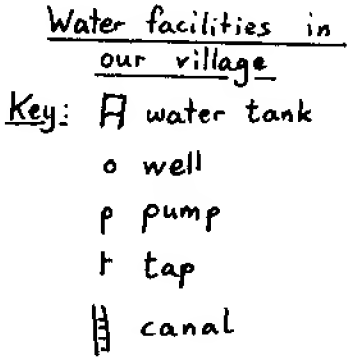


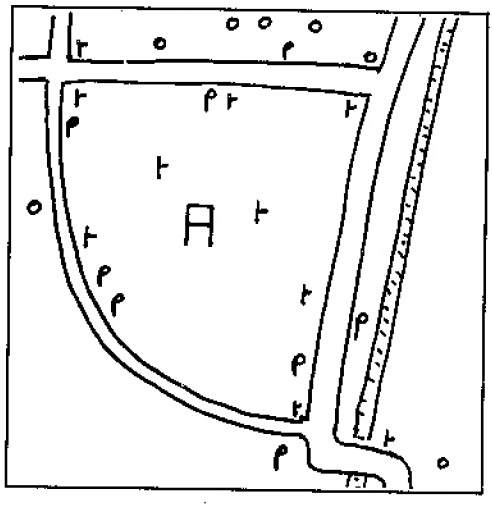
After drafting a map like this on the board, you may wish to make a model of your village on the floor—in a corner of the classroom. Roads can be drawn with chalk, buildings made of clay or mud or cardboard boxes. Water is effectively depicted by silver foil from cigarette packets and trees can be made of rolls of coloured paper. All children should copy the map as a record. It will be useful for later work like that on page 120.

j. **Simplifying maps**

Level 3

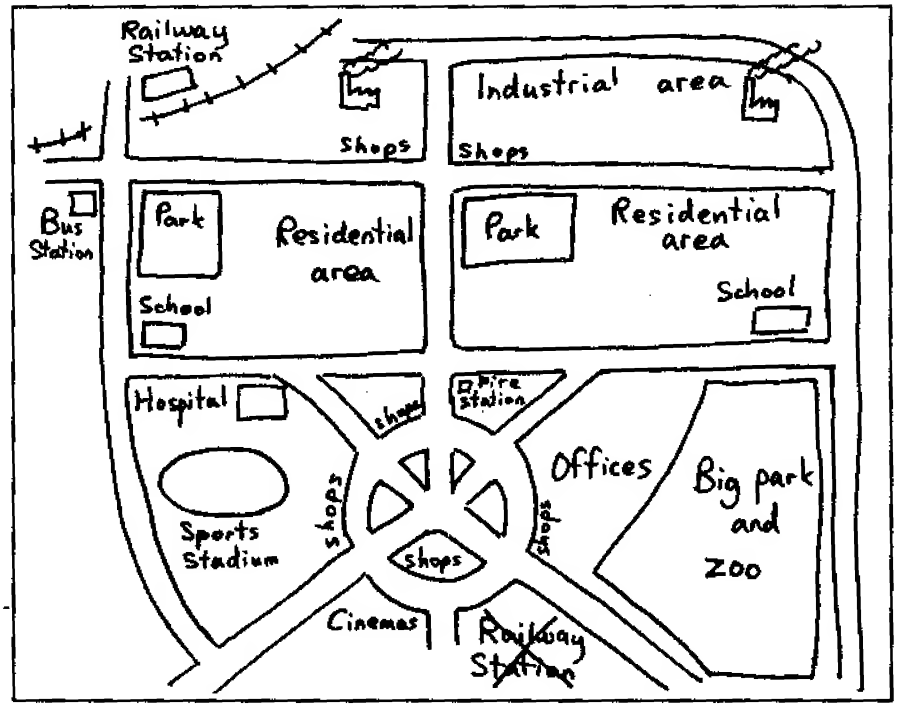
It is not always necessary to do detailed maps. A map like the one above takes time. When children are familiar with the basic outline of their village, the details can be left out. Here, only the main roads have been drawn and children have marked onto the board the whereabouts of different water facilities in the village.





k. **Imaginary maps**

Level 3



When your pupils have developed mapwork skills with reference to places they know, they can be asked to design imaginary places. A useful class activity is to design an ideal town on the blackboard. Different children come up to add its features. There will be a lot of discussion about whether it is desirable to have straight roads, factories near residential areas, whether all the shops should be in a cluster or spread around the town etc. One of the advantages of working on the board is that the children can change their minds and rub out features they do not like. In this map, the railway station was moved to the industrial area so that goods could be easily transported from factories. This activity is a good way of getting children to think about local amenities and how they should be planned. After a practice map on the blackboard, you could ask the children to design their own ideal towns and write their reasons for designing them as they did.

l. **Scale maps**

Level 3

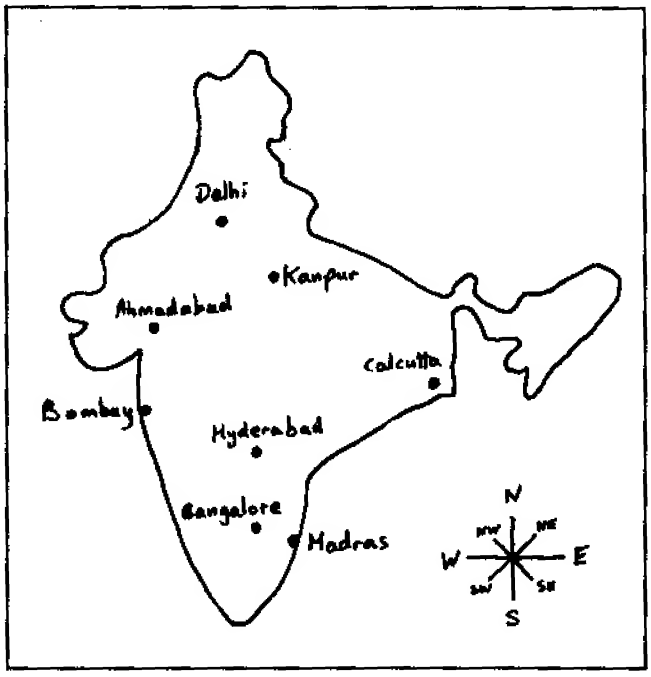
These are difficult. Scale maps of the classroom or area around the school are the easiest to make. Get children to measure the length and breadth of a room and its furniture. Then they can draw a map on the board similar to that shown in Section f (page 109). Use a scale of 10cm to 1m on the board, 1 cm to 1m in their books.

m. **A map of India**

Level 3

Children should only be introduced to maps of India and the world when they have done plenty of mapwork on known places. A simple map is best. For detailed work, use a printed map. A board map like this can be a useful way of practising the points of the compass and sentences like :

Hyderabad is north of Bangalore.

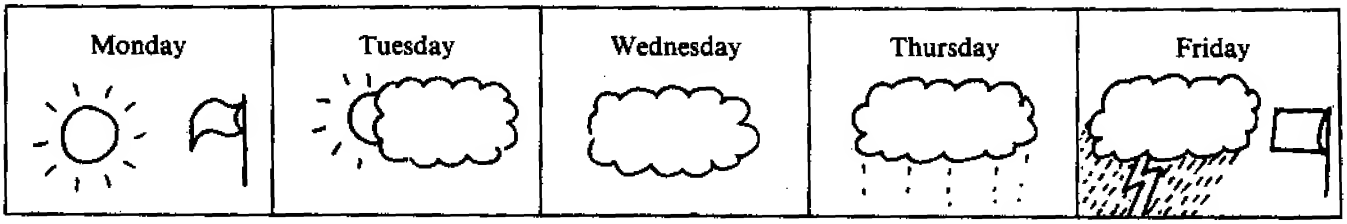


2. *The weather and climate*

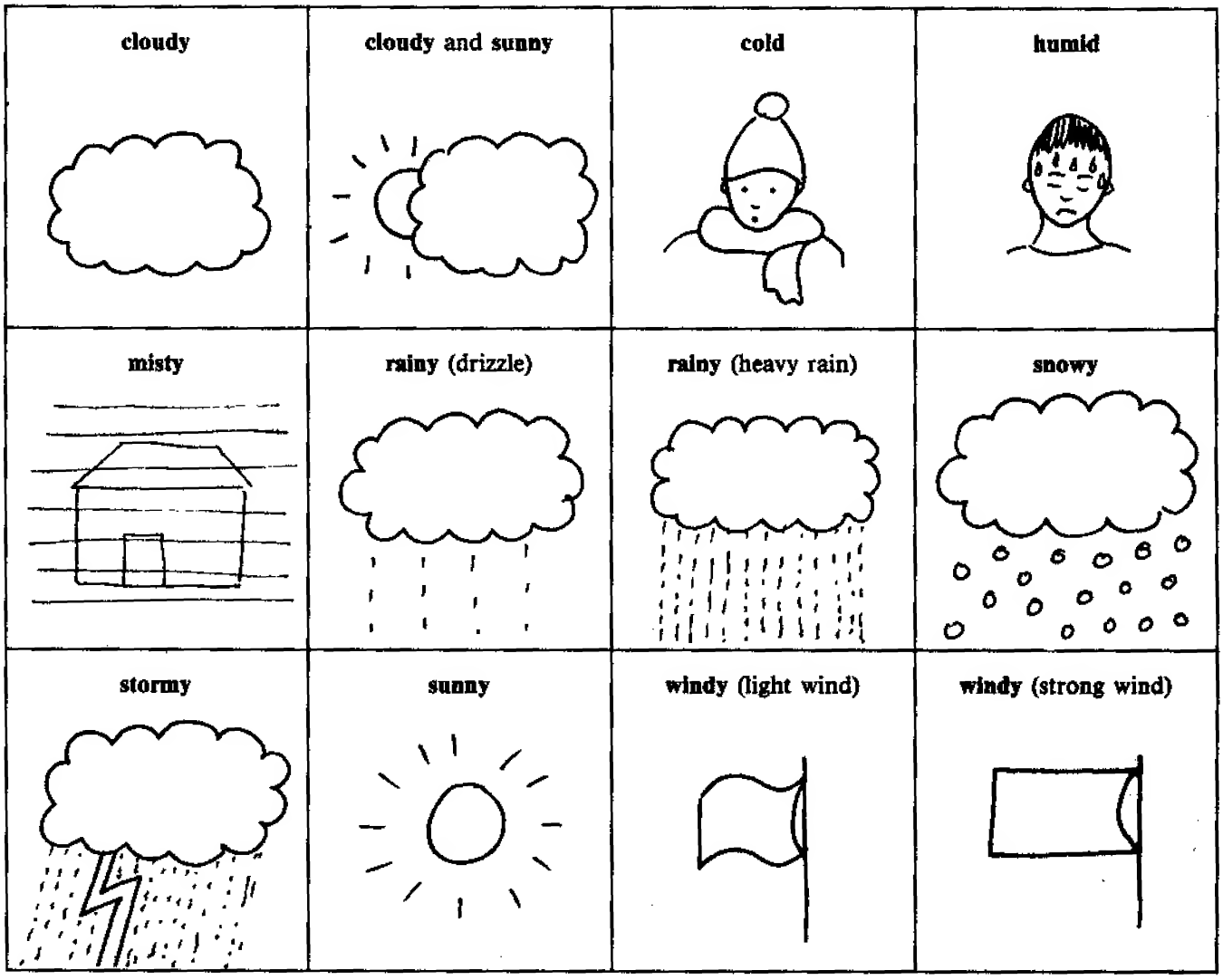
a. Weather symbols

Level 1

Young children become aware of changing weather patterns if they make a weather chart. They can divide a double page of their exercise books into five or six sections and write the names of their working days. Each day discuss the weather and draw an appropriate symbol on the board. The children copy it into the space for the day. For example :



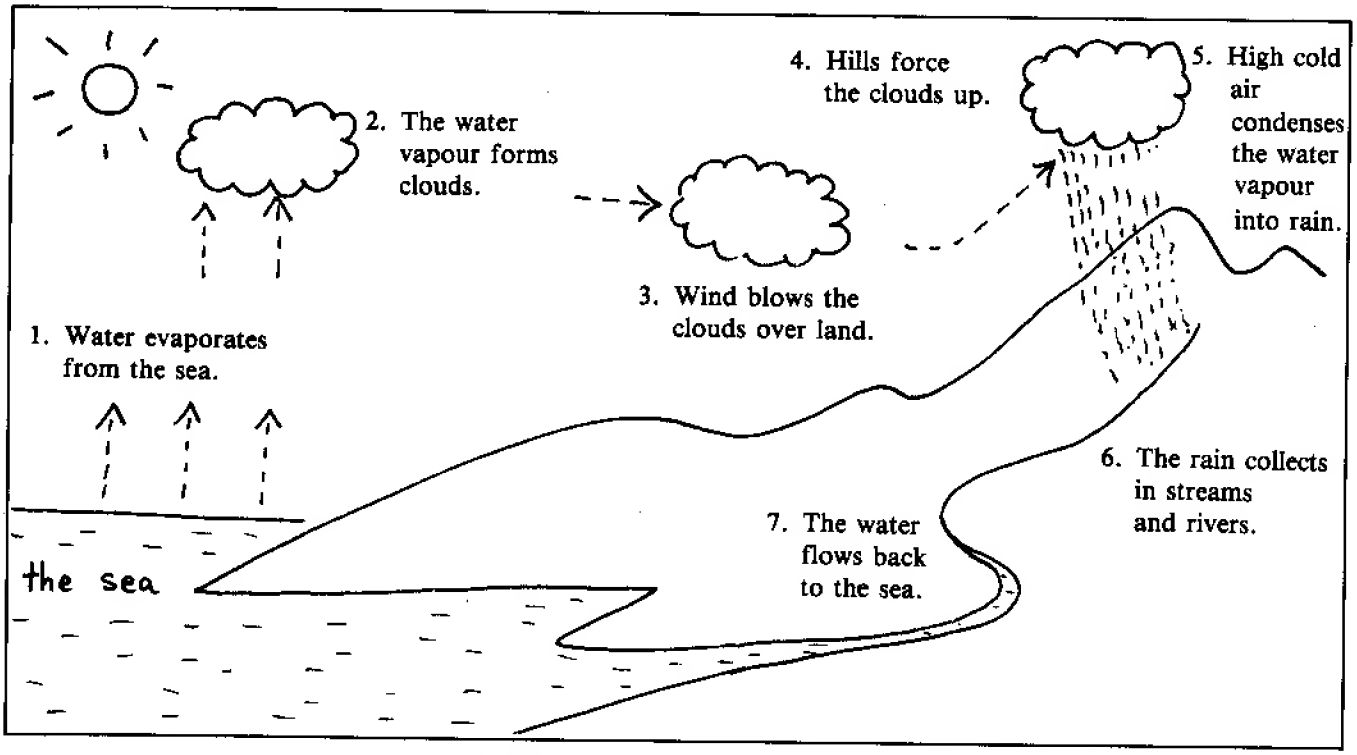
Here are some useful weather symbols you can use with pre-literate or semi-literate children (note that you can use two or more symbols for one day).



b. **The water cycle**

Level 2

The advantage of showing the childen the water cycle on the blackboard is that you can draw it in stages. The process of drawing it shows the children the process of evaporation, cloud formation, condensation etc. This is why it is more useful to draw a diagram like this on the board than to show it in a textbook.

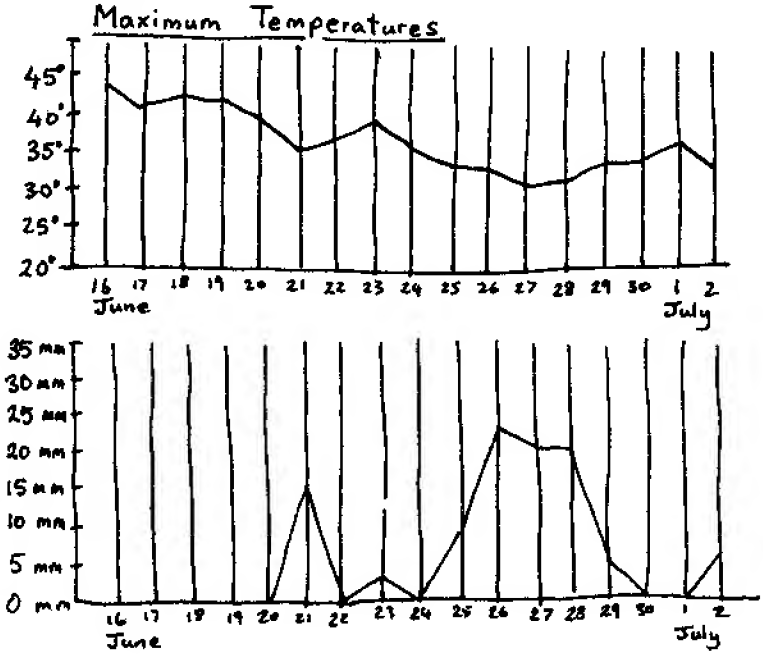


If you rub the numbers out, your pupils can be asked to write the sentences in the correct order.

c. **Rain and temperature graphs**

Level 3

At a time of the year when you are likely to have some rain, it is interesting to do a rain and temperature graph. Draw two grids on the board like these. Get the children to copy them onto a squared paper if possible. Be sure that the dates of each graph correspond (i.e. 16 June in the temperature graph should be directly above 16 June on the rainfall graph and so on). Put a thermometer outside in the shade. Put a straight-sided tin in an exposed place. A funnel in the top will help to prevent the water from evaporating. Get the children to read the temperature and measure the depth of water at the same time each day. After a week or two, they will see that the temperature goes down when the rainfall goes up.

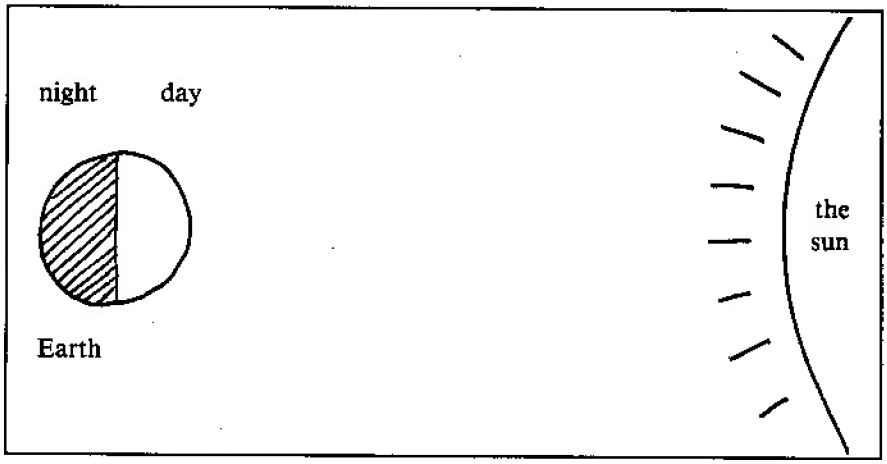


3. *The earth in space*

a. Night and day

Level 1

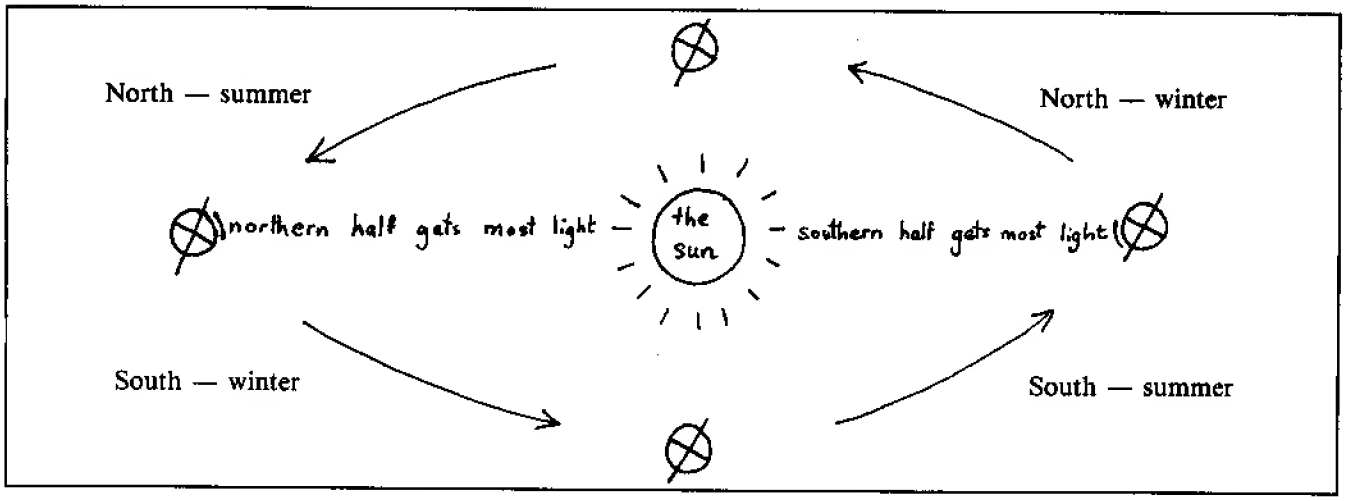
This idea is best shown with a ball and a torch, if you spin the ball between thumb and forefinger, and shine a torch at it. This can be reinforced with a simple drawing on the board.



b. Earth's orbit of the sun

Level 2

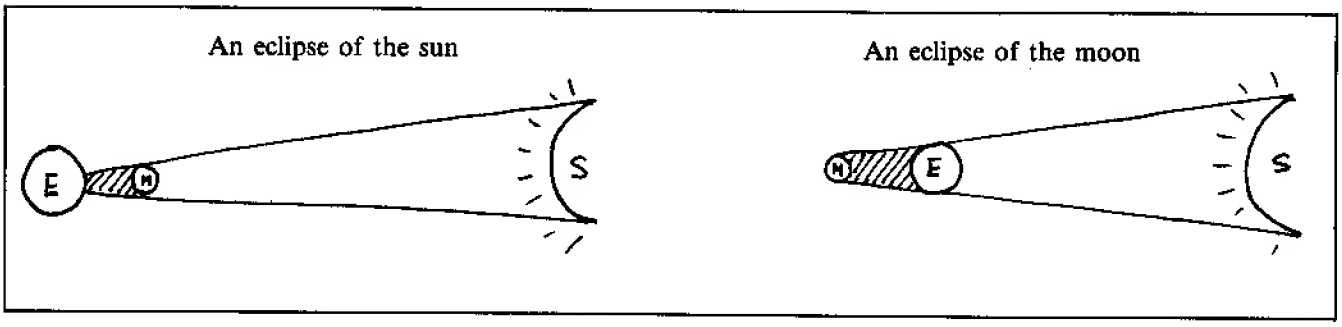
A diagram like this can help children to see that the Earth spins on a tilted axis. Then they will be able to understand the changes of weather in each season.



c. Eclipses

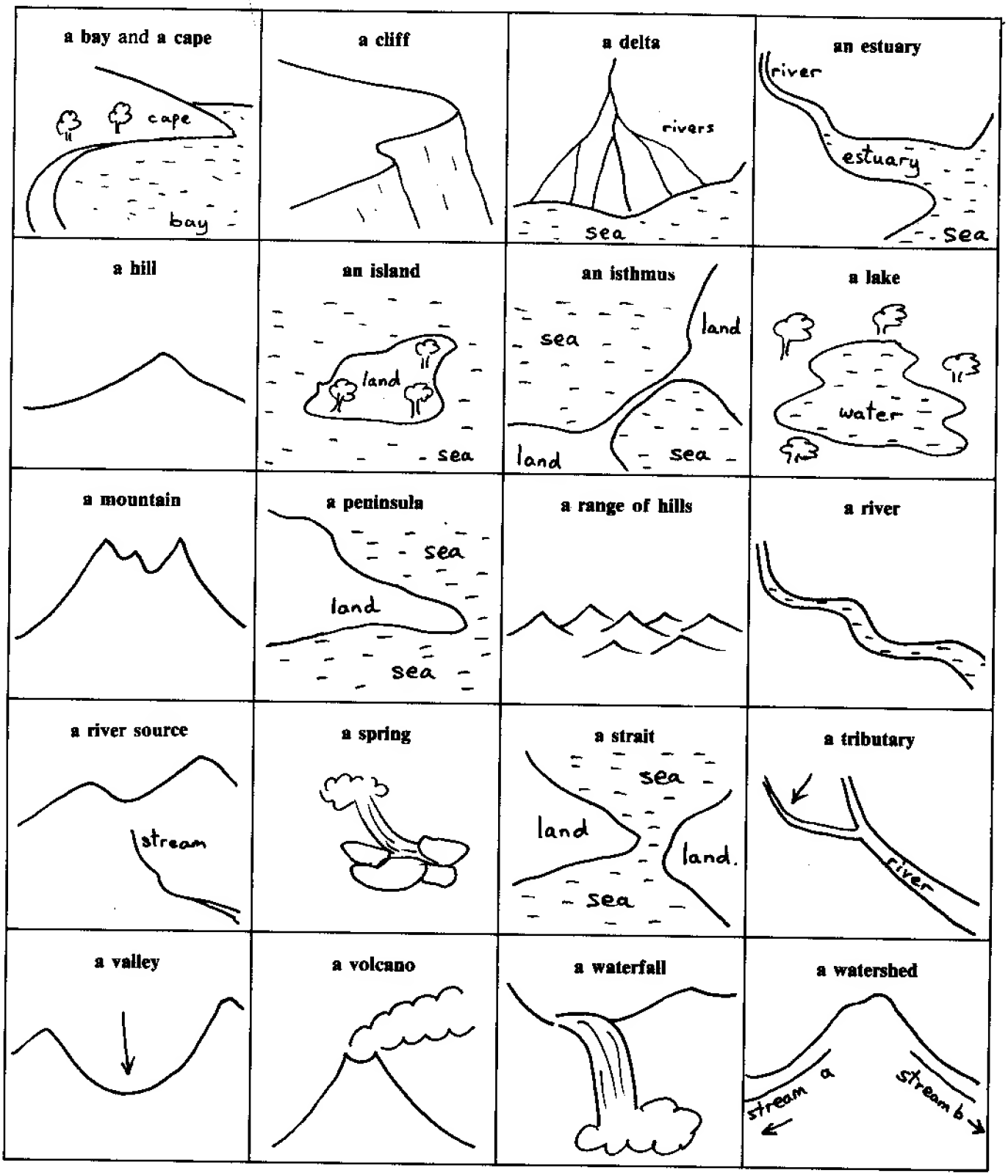
Level 3

These simple diagrams will help your pupils understand the difference between a solar and lunar eclipse. If possible, also show them practically with two balls and a torch.



4. *Landforms*

If you live in a flat place, far from rivers or the sea, it may be difficult to explain certain landforms. Simple blackboard drawings like these can help :

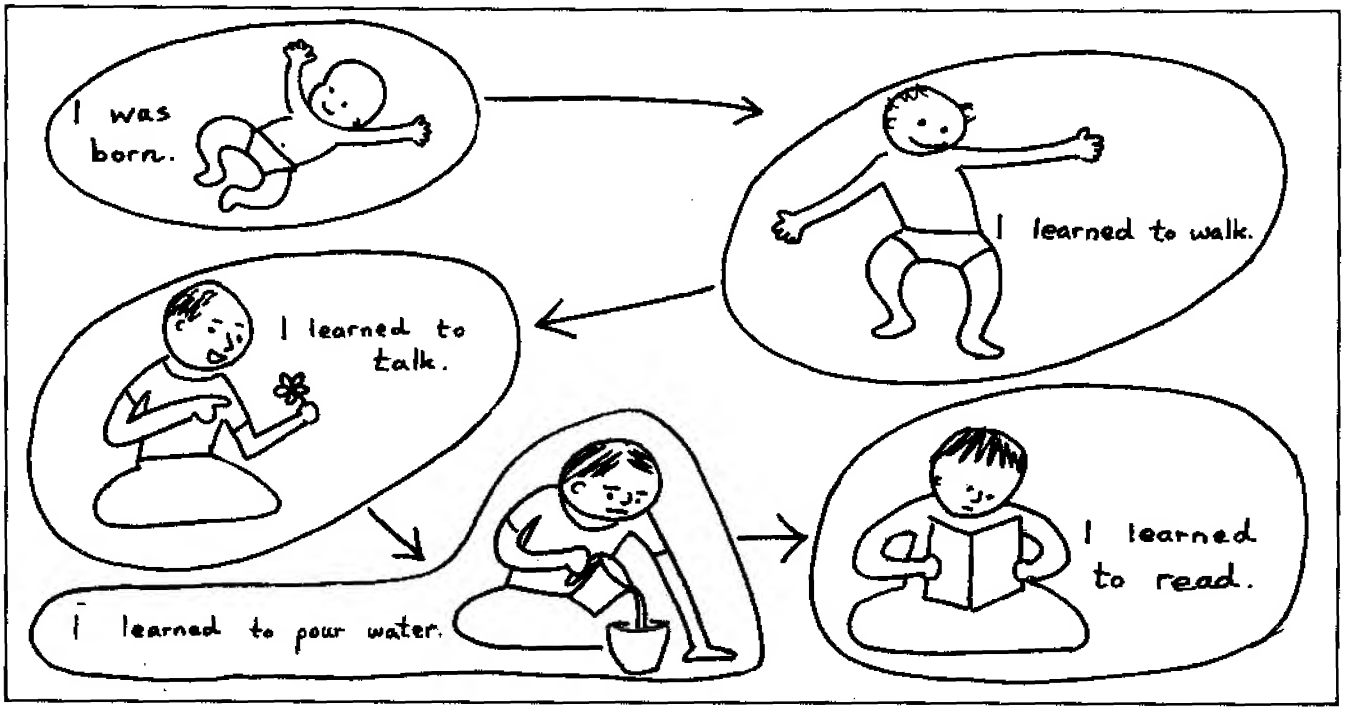


HISTORY

1. *Time lines*

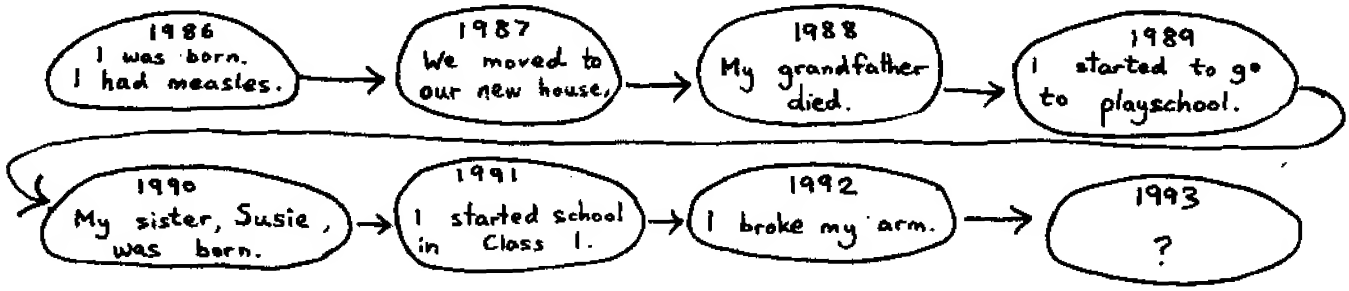
Level 1

Just as it is best to start geography with children's immediate surroundings, it is also best to start history with their immediate past. Small children have not lived long, but they are all aware of changes that have taken place in their own lives. A sense of the sequence of their own lives is established by a time line. As an example, one child's time line can be written on the board. The other children can follow the example and make up their own. (Pictures will do if they cannot write.)



Levels 2 and 3

Older children can write more personalised time lines about the events in their own lives. Call one child to the front and ask her/him to tell you the most important events in her/his life. Do a time line on the board and ask the others to write their own.



This exercise can be made more or less detailed according to the ability of your pupils.

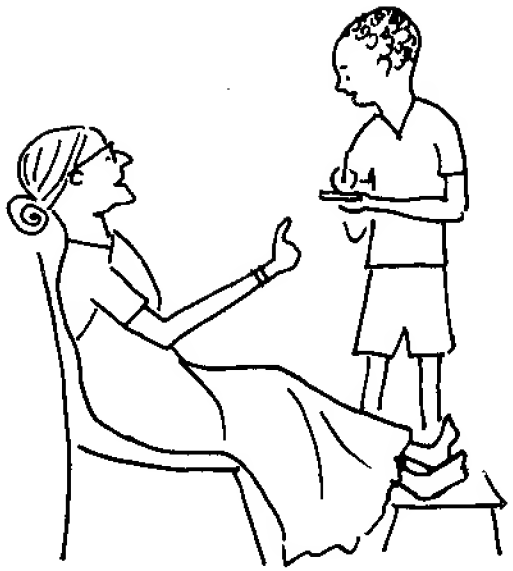
2. *Surveys*

A time line is a good way of establishing the idea that history has a sequence. But a child's life is short. To gain a deeper sense of the past, children need to look at the memories of people they know and at things and buildings from past times.

a. Surveys of people

Level 2

Tell your pupils that they are going to do a survey for homework, to find out about life as it used to be about forty years ago. Ask the children to copy these questions from the board and leave two or three lines for each answer. They can put these questions to a grandparent or anyone over fifty years of age.



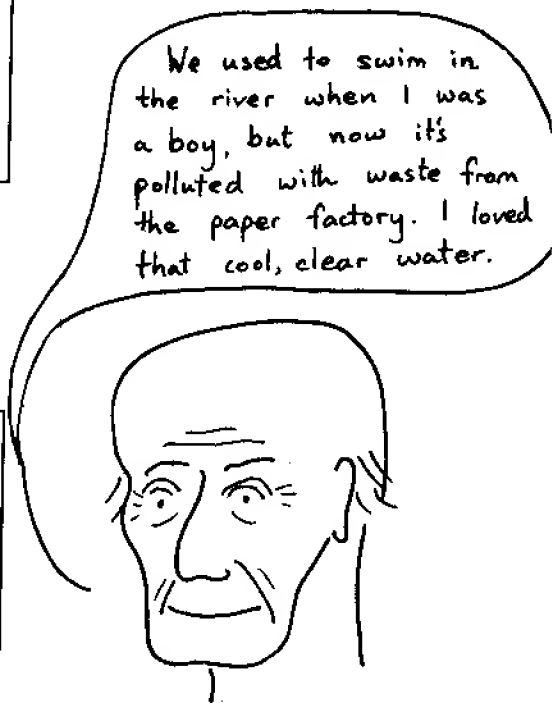
Life in our town/village about forty years ago

1. What kind of stove did you cook on? (wood, kerosene, gas etc.)
   .....
2. What kind of lights did you have? (oil lamps, kerosene lamps, electric lights etc.)
   .....
3. Where did you get water from? (well, pump, tap etc.)
   .....
4. ★ Did you have : a. electric fans? ..... b. a fridge? .....
   c. a radio?..... d. a flush latrine? .....
   e. a cycle?..... f. a ball (point) pen?..... g. a TV?.....
5. How far away was the nearest : a. school?..... b. cinema?.....
   c. post offfice? ..... d. doctor?.....
6. Were the roads then a. tarred? .....
   b. more or less noisy?.....

★ *N.B. Only use the items most of your pupils have* **now.**

Level 3

A similar, but more complex survey can be made including questions of opinion (for example, some people may like the changes which have taken place, some might dislike them). More space will need to be left for each answer.



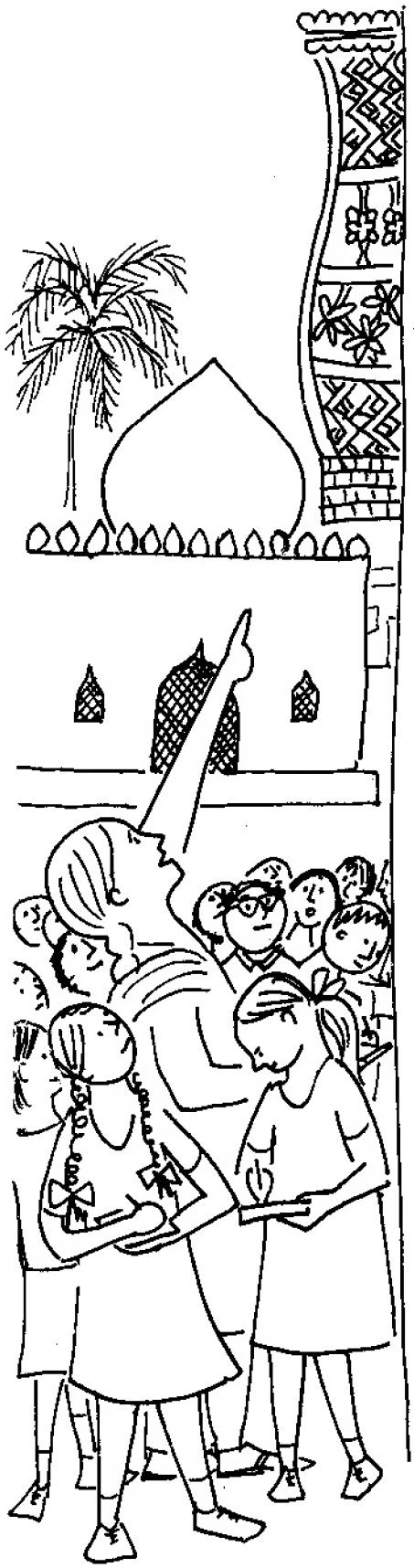
7. What do you miss about old times? (Time to sit and chat? The old swing in the veranda? Brass drinking glasses?)
   .....
8. What has changed for the better in your opinion? (Medical care? The invention of food mixing machines?)
   .....
9. What has changed in the lives of
   a. women? ..... b. children?.....

History: Surveys (continued)

Surveys of places

Levels 2 and 3

You will need to prepare a survey like this in advance by researching the area around the school. Look for changes in the style of buildings. You may be lucky enough to find dates on some of them. When you have done your preliminary visit and worked out your survey, organise a trip to visit the places of historical interest nearby. These need not only be ancient temples and tombs. Domestic houses can be of as much historical interest. Write the questions of the survey on the board before you set off. It is best for children to copy them on paper, as slates may get rubbed in the journey. Slates however can be useful for your pupils to lean on. Do not expect them to write very big answers. Make sure that they leave enough space for answers and drawings. They can write about their findings and draw their pictures neatly when they get back to school.



A survey of our town

Venugopalswamy street

1. When was the pink house with the green door built?
   .....
2. Do you think the house to its right is older or more modern?
   .....
3. Look at the wooden balcony above the steel shops. How old do you think it is? ..... Can you find out?.....

Venugopalswamy temple

4. What is the gopuram made of? (stone, cement, wood?)
   ..... What is the vihara made of? .....
   One of these is sixteenth century, one is twentieth century. Which do you think is which?
5. Find sculptures of a sheep, an elephant and a woman skipping. Draw them on the back of this paper.
6. Choose your favourite statue and draw it.

Mauza Ali tombs

7. Look at the notice to the left of the gate. When were these tombs built?.....
8. How many people were buried here?
9. Stand behind the big grave in the tomb with a blue roof. Draw what you see through the door.
10. Look at the holes in the wall by the door. What do you think made them?

3. *Looking at evidence*

Levels 2 and 3

Ask the children to bring into school something which is more than twenty years old. Explain that they need only bring it for one day and that you will look after it during lunch breaks etc. They could bring in the following things : old photographs, old newspapers, brass pots or ornaments, old books, old-fashioned tools (e.g. an old butter churn), old pictures, old cooking or eating utensils, old rugs. Bring in a few things yourself as some children will be unable to bring in suitable objects. Explain that you are going to look at these things for evidence of life in the past. Let the children write about three or four objects, passing them on when they have finished with them. For Level 2 children, you could write a pattern like this on the board together with the spellings of difficult words :

I am looking at a _____. I _____ brought it into school. It was made about _____ years ago.

I know this because ..... .
I am only guessing this.

It is made of

It was used for ..... . It is different from a modern one because ..... .

4. *Looking at maps*

Level 3

Children who are familiar with a map of their home area can get a lot of information by looking at an old map. If this is difficult to obtain, reconstruct one on the board with the help of a survey like that on page 118. This is a reconstructed map of the village drawn on page 111. The children have found that the post office and canal teashop were in different places forty years ago. There was no high school and the elementary school was in the present high school building. There were no pumps or water tank, only wells. The main road was not tarred. Some big tamarind trees have been cut down. The village was smaller. When the children have copied the historical map, they can write about the changes which have taken place.